

NEW

80 YEARS AGO: THE ONSLAUGHT OF WORLD WAR II BEGAN

Bringing History to Life

Stalingrad

The most
brutal battle
in history

The last hours of the Third Reich

The Red Army
captures Berlin

A WORLD AT WAR



HITLER MUST DIE

German officer was
behind murder attempt



BATTLE OF BRITAIN

Luftwaffe duelled with
the Royal Air Force

WAR UNDER THE SEA

German
U-boats
battled for
the Atlantic



HOLOCAUST: 6 MILLION JEWS BECAME VICTIMS OF MASS MURDER



THE WORLD IS SET ON FIRE

On 9th August, 1945, American pilot Charles W Sweeney threw a nuclear bomb over the Japanese city of Nagasaki. 43 seconds later, his deadly cargo exploded in the air over the port city and turned the thriving city centre into a molten ruin. Up to 70,000 people lost their lives. The atomic bombs which were dropped on the two Japanese cities of Hiroshima and Nagasaki were the culmination of six years of horror. Since Nazi Germany's troops had invaded Poland in 1939 and thus threw the

world into another great war, the fighting had evolved into the most ruthless that the world has ever seen. But the brutality did not stop on the battlefield. Hundreds of thousands of civilians lost their lives in random carpet bombings or were victims of bitter soldiers' revenge, while an entire people were attempted to be wiped out in the Nazi death camps.

A World at War is not at all easy reading. It is, like the war, at the same time, in equal measures both awful and fascinating.

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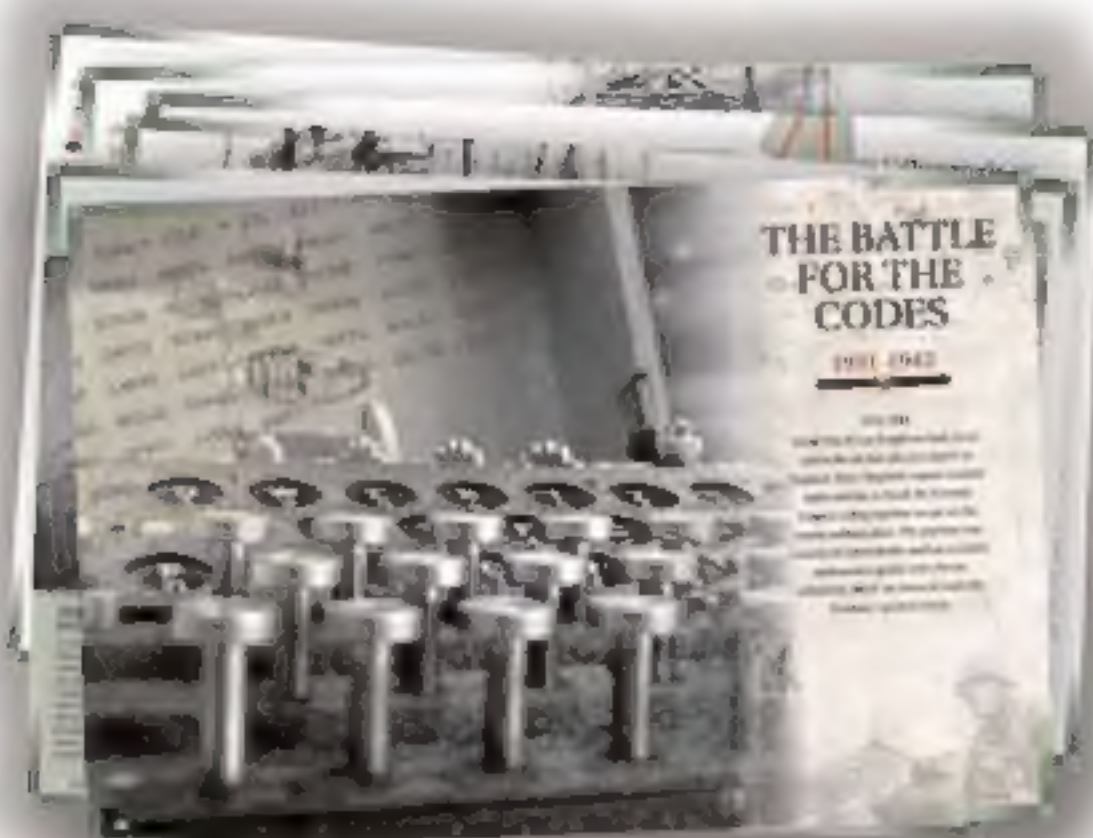
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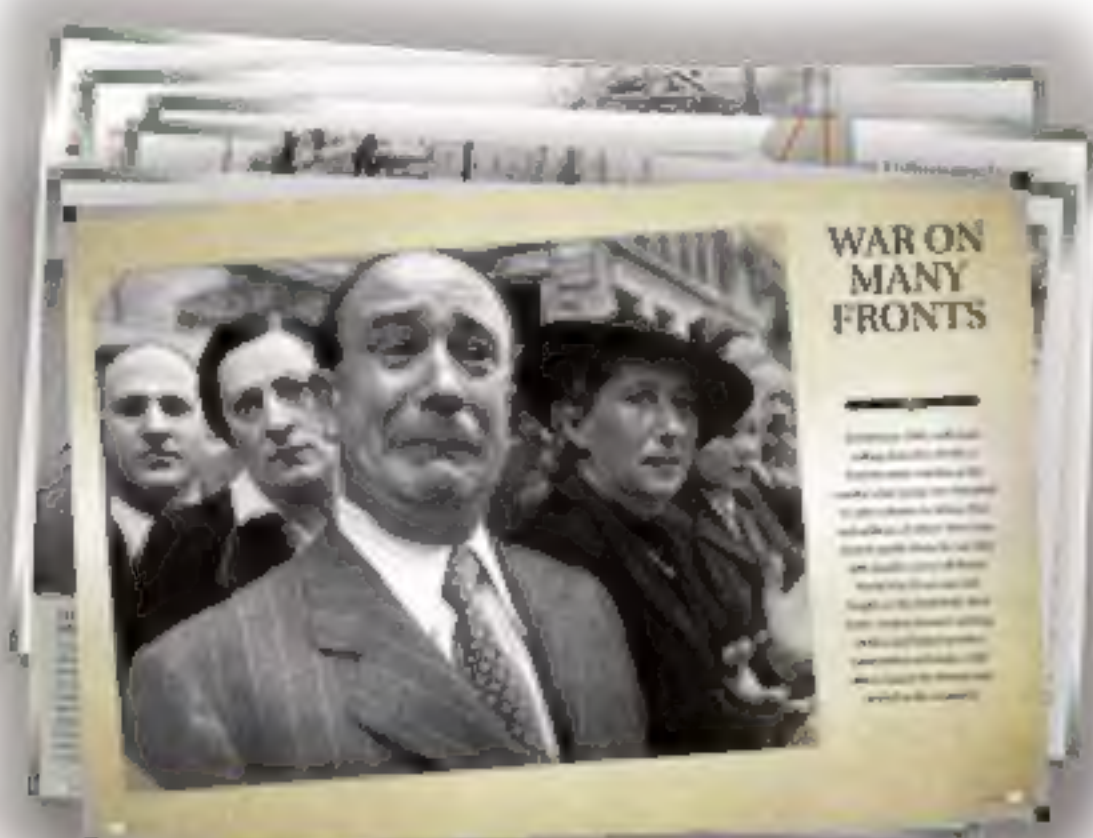
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A WORLD AT WAR

Publishing Director: Niels Jespersen
Editor-in-chief: Hanne-Luise Danielsen

Production: Pernille Aagaard

Cover: ITV/REX/Shutterstock

Translators: Lynda Johnson, Jason Casey, Steven Casey

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Regina Erak – regina.erak@globalworks.co.uk
Tel: +44 (0)7753 811622

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BONNIER
Publications International

1939 // *The attack on Poland*1940 // *Germany occupy France*1941 // *Operation Barbarossa*1941 // *Germans rumble through the Soviet Union*1941 // *Soviet campaign gets stuck*

1939-41

IMMINENT WAR

1939 On September 1, 1939 Hitler's army is let loose on Poland. 1.5 million German soldiers invade the neighbouring country and begin six years of horrors. The attack prompts France and England to declare war on Germany on September 3 – and WWII is a reality. The Polish defence takes a stand against the Germans, but on September 17, the country is invaded by Soviet troops from the east and although the Polish forces fight bravely, they concede in October after five weeks of fighting. Approximately 66,000 soldiers lost their lives in the defence of Poland with the country divided between Stalin's Soviet Union and Hitler's Germany.

BLITZKRIEG IN EUROPE

1940 The declaration of war from France and England was largely initiated by a naval blockade of Germany. And the Allied troops' passive stance prompted the press to name the war a Sitzkrieg – a sitting war. But April 9, 1940 the tide turned and Blitzkrieg started. The Germans first occupied Denmark and Norway and a month later, rattled on through France, Belgium, Holland and Luxembourg. The Allied troops relied on the heavily fortified Maginot Line along the French-German border. Germany surprised everyone by walking around the Line and suddenly British forces had to be evacuated from Dunkirk.

1940 // *Battle of Britain*1941 // *Blitz over London*1941 // *The Japanese attack Pearl Harbor*

BATTLE OF BRITAIN BEGINS

1940 On July 10, 1940 The Battle of Britain begins. The goal is control of Southern England's airspace. Hitler wants to launch an invasion to take control of the English Channel. England with the RAF continues, stubbornly under the leadership of British Prime Minister, Winston Churchill. In September, after two months of losses, Hitler abandons his attack on England, directing his attention to the east. The Battle of Britain cost the Luftwaffe almost 1,900 aircraft and 2,700 men against British losses of just over 500 men and 1,500 aircraft. Luftwaffe continues to bomb English cities throughout the rest of the war.

ATTACK ON PEARL HARBOR >>>>

1941 Stalin's Communist Soviet Union is the Nazis' ideological arch-enemy, and in June 1941, 4.5 million German soldiers march into Russia during Operation Barbarossa. They almost reach Moscow before the harsh Russian winter and a fierce defence slows them down 24 kilometres outside the Capital's walls. On the other side of the world, Japan attacks the US naval base at Pearl Harbor on December 7, late afternoon. By 7.48 more than 3,000 Americans have died and 200 aircraft destroyed. The attack shakes the American people and President Roosevelt called it "a Day of Infamy". The hostile superpower is drawn into the war.

1942 // *The English break the Enigma code*1942 // *RAF break from the Blitz on London*1942 // *Civilians fleeing Stalingrad*1942 // *Hitler's Sixth Army is surrounded*1943 // *Germany lost the Battle of Stalingrad*

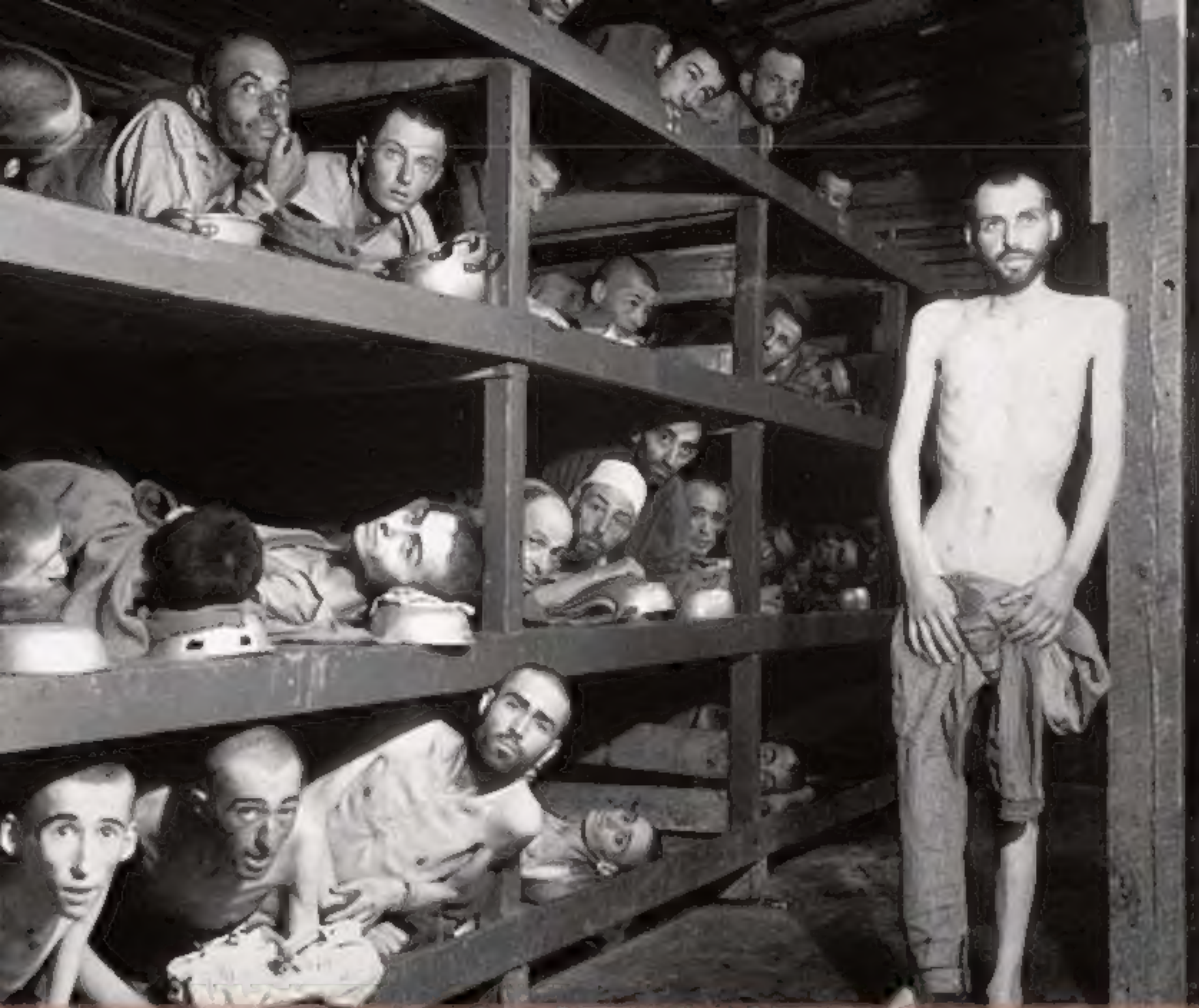
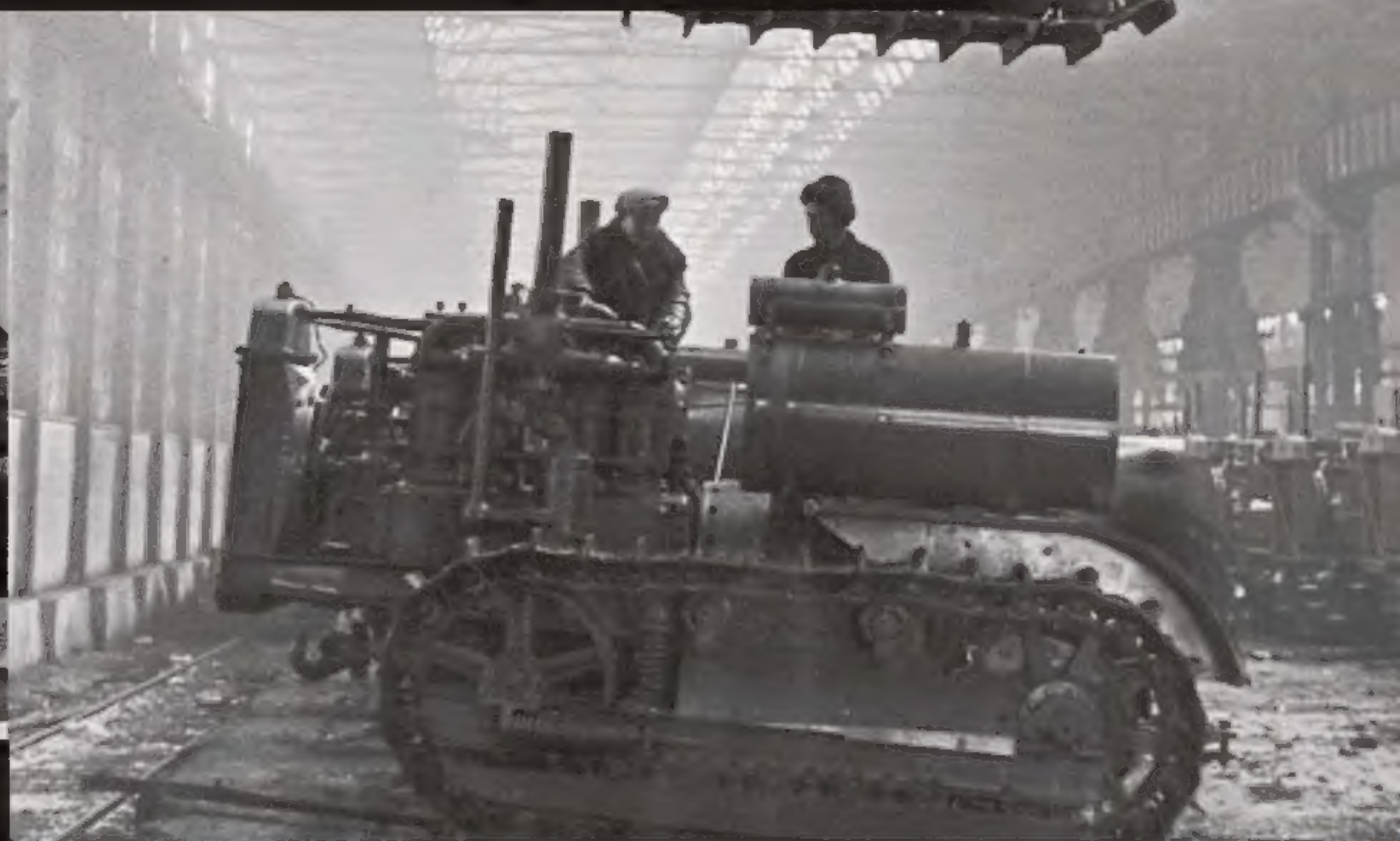
1942-43

ALLIED OFFENSIVE

1942 After more than two years of success on the battlefield, Germany's luck begins to turn. Until the end of September 1942, the Germans stole the march in the Soviet Union, but when Hitler put his Sixth Army in to capture the strategically important city of Stalingrad, the Russians defend to the death. Both sides suffer enormous losses. In North Africa, Hitler's war machine come to a standstill. In November, Allied soldiers, led by General Montgomery win their first victory at the Battle of El Alamein. Although 4,600 Allied soldiers die, the victory marks a turning point. For the first time since the war began, church bells ring over England.

FINAL SOLUTION IN AUSCHWITZ

1942 In 1933 Hitler established the first concentration camps for his political opponents. In 1940, he forces Jews to live in overcrowded ghettos in Poland, and in late 1942, he put his 'Final Solution' vision into overdrive. Jews are sent to the hidden areas in Eastern Poland where six concentration camps are operational and function as outright extermination camps. Today's most modern technology will streamline the genocide of the Jews and the Slavs; the ultimate outcome of Hitler's vision. In the largest and most notorious camp, Auschwitz-Birkenau, between 800,000 and 1.1 million people are gassed to death or murdered in other ways.

1942 // *The Nazi Führer implements his Final Solution*1942 // *Soviet Union rearm at an unprecedented rate*1943 // *Tehran conference*

ICY DEATH IN STALINGRAD

1943

In November 1942, the Red Army successfully implemented a pincer movement around the thronged Germans in Stalingrad. On February 2, 1943 the last Germans surrender. They lost between 500,000 and 850,000 troops in the Battle of Stalingrad. And this is not the only bad news for Hitler. After the defeat at El Alamein the last Axis troops are pulled out of North Africa in May. The road is paved for the Allied invasion of Sicily and Italy. And from the outcome of a meeting in Tehran in November, Stalin, Roosevelt and Churchill decide to attack the Germans in Normandy in 1944.

AXIS POWERS IN RETREAT

1943

On September 3, invading Allied forces take Southern Italy almost without resistance. On September 8, the Italians surrender. Hitler refuses to release the territory to the South and German forces take over Italy's defence. Allied forces continue to face fierce resistance from November 1943 until the end of the war. Mid 1943 German allies in Japan suffer a decisive defeat at the Battle of Midway in an attempt to destroy the American fleet in the Pacific. And in Burma, British forces defeat the increasingly desperate and isolated enemy, in a rally of bloody jungle battles.

1944 // *Parachute Troops disembark before D-day*1944 // *Invasion of Normandy*1945 // *Japan launches suicide strategy*1945 // *Peace in Europe*1945 // *Himmler commits suicide*

1944-45

RUSSIANS ARE COMING

1944 Russians liberate Leningrad in January 1944. After the German defeat at Stalingrad, the Eastern Front is relatively quiet until the summer of 1944. Then a massive Russian offensive begins with 2.3 million soldiers pounding through the thinly defended German frontline in Belarus. In the Great Patriotic War, as Stalin called the war, life is not worth much to the Red Army. Russian General Zhukov clears minefields by allowing his soldiers to march through them. In March, the Russians advance into Romania, and three months later attack German positions around Minsk and within a week take 350,000 German prisoners of war.

LANDINGS IN NORMANDY

1944 On June 6, the Allies open a new Front in the West. There had been more than half a year's preparation for Operation Overlord, the Normandy landings, where 156,000 men rush onto five beaches, establishing a bridgehead in France. Over the following weeks British, American and Canadian forces start a slow march, towards Berlin. In August the Allies free Paris. The US troops in the Pacific mount an intensive bombardment of the island of Iwo-jima – the first attack on Japanese territory and a prelude to invasion the following year. On August 10, they regain Guam – a strategically important island occupied by the Japanese.

1945 // *Battle of the Bulge*1945 // *Berlin falls to the Red Army*1945 // *Atomic bomb on Nagasaki*

HITLER COMMITS SUICIDE

1945


In January, Warsaw falls and soon after, the rest of Poland and the Baltics. Earlier in the month the Germans' last desperate attempt at a counter offensive in the Ardennes failed. The Allies superiority in the air is crucial. Luftwaffe is running out of fuel and the Allies attack is now carefully aimed at German oil depots. on 16 April, Russians' last offensive against Berlin and the rest of Germany begins. They reach the centre of the Capital on 29 April. The day after, Hitler commits suicide. Berlin commanders surrender on May 2 and May 8, Germany surrenders unconditionally to the Allied forces.

ATOMIC BOMBS OVER JAPAN

1945

While the war is over in Europe, it continues in Asia. Although Japan is retreating, the generals in Tokyo still believe that they can win an "honourable peace". They see an opportunity when US President Roosevelt dies on April 12, but his successor, Truman, maintains that Japan should surrender unconditionally. Despite repeated requests, Tokyo shows no sign of surrender. Truman decided to put the new weapon, the atomic bomb, into use: On August 6, between 71,000 and 80,000 people die instantly in Hiroshima. Three days later, approximately 40,000 die in Nagasaki. The Japanese Emperor, Hirohito, surrenders on August 15.





JAPAN GOES TO WAR

1937-1941

Early summer 1937: Japanese soldiers invade central China, following the plans of their powerful generals, to extend the Japanese Empire across all of eastern Asia.

Motivated by a racist ideology with a divine emperor at its centre, the Japanese brutally oppress and abuse the conquered Chinese through nearly four years of war. Conquest and plunder fuel ambition and Japan's powerful elite declare their readiness to take on the world's strongest imaginable enemy: the United States of America.

1937-41

1937 Japanese forces in Manchuria invade China and occupy Nanjing.

1940 Japan enters northern French Indochina.

1940 Japan, Germany and Italy sign the Tripartite Pact in Berlin.

1941 USA and Britain close all oil exports to Japan.

1941 Japan attacks Pearl Harbor and subsequently invades Hong Kong, Malaysia and Thailand.



The Arisaka rifle was the standard weapon of the Japanese troops.



an ultra-nationalist version of Japan's ancient Shinto religion. The emperor was

originally one of many divine forms, but the ultra-nationalists made him the undisputed centre.

They considered Japan a divine nation with the right to dominate all of Asia, while politically and in the military ranks, the ultra-nationalists took power.

The growing importance of the emperor was a tremendous advantage for Japan's ambitious military generals, as the constitution stated that the armed forces were directly under the emperor and not subject to political control. By lifting the emperor's words to law, the nationalist generals only required convincing one man to get their way: the young emperor Hirohito, who was only 25 when he climbed the throne in Tokyo in 1926.

The emperor's god-like status also allowed the ultra-nationalists to brainwash the population. The Japanese were taught that if an order was presented as the emperor's will, it was a divine command that must be obeyed. A schoolchild during the war, Wakana Nishihara explains the meaning in his own words:

"In Japan, they said, 'Die for the Sake of the Emperor.' No one could disobey an order to die for him."

DESIRE FOR BRITISH-TYPE COLONIES

From the beginning of the 1930s, the economic world crisis following the stock market crash in the USA hit the overpopulated and already financially

On 13th December, 1937, 30 Japanese soldiers broke into a private home in the southeastern part of Nanjing. On that day, the Chinese capital fell to the Imperial Japanese Army, and the Japanese rushed through the streets of the city. As the soldiers broke into the house, they killed the owner of the home. Then they shot the homeowner's wife and a tenant before turning their attention to the tenant's wife. Brutally, they tore off the woman's clothes, raped her, forced perfume bottles into her vagina and killed her with their bayonets. The soldiers also stabbed her one-year-old infant to death.

Further inside the house, the soldiers found the woman's parents and two daughters. The old couple were immediately shot, after which the soldiers threw themselves on the girls of 14 and 16 and raped them.

Before the soldiers left, they executed the homeowner's two children of five and two years. The eldest was killed with a bayonet. The youngest they beheaded with a sword. The only survivors of the house were an eight-year-old girl and her four-year-old sister. The two had hidden under a blanket.

The murders in the house in southeastern Nanjing were common. In

homes, hospitals, shops, and places all over the fallen capital, 50,000 Japanese soldiers murdered, mutilated and raped the citizens throughout the next six weeks in one of the bloodiest massacres experienced throughout world history.

A shocked outside world christened the suffering of the 500,000 city inhabitants as "The Rape of Nanjing". Historians have never been able to determine the extent of the massacre, but it is clear that Japanese soldiers raped between 20,000 and 80,000 women, while the number killed was at least 200,000. Chinese historian Sun Zhawei set the death toll as high as 377,400 more than the total number of people killed after the atomic bomb blasts in Hiroshima and Nagasaki.

800,000

Japanese colonists immigrate to the vassal state of Manchuria, North China in 1931

IMPERIAL BRAINWASHING

The seeds of Japanese cruelty in China were planted many years earlier. At home in Japan, an increasingly fanatical, ultra-nationalist cult arose around Emperor Hirohito. The Japanese officially reestablished the emperor in the late 19th century and regarded him as a living god. His word was all-knowing and his command would never be questioned. Where Germany had Nazism and Italy Fascism, Japan in the 1930s was steeped in



BRAINWASH: many years of indoctrination had preceded Japan's conquest. Here, scouts in military uniform celebrate the emperor's 2,598 year reign in 1938.



RAW MATERIALS: Japan's invasions of its neighbours would provide raw materials for its growing population.



HOME FRONT: while the men went to war, women worked in the munitions factories at home in Japan.



JOHN RABE 1882-1950

NANJING'S GOOD NAZI

■ Amidst the horrors of Japan's siege of Nanjing, an unlikely hero emerged: the head of the local Nazi party, John Rabe. Rabe was a German businessman in the Chinese capital and together with other foreigners founded the Nanjing International Committee, which established the Nanjing Safety Zone.

The zone meant for Chinese who had lost their homes during the Japanese bombing was intended to be

closed after the Japanese invasion. Instead, the zone became a shelter for approximately 200,000 Chinese from the slaughter of the Japanese.

John Rabe used his membership in the Nazi party to intervene in the sacking of the city.

He wrote to Hitler in an attempt to stop the Japanese atrocities and pleaded with the Japanese city leaders to take action.

German Businessman – Documented the Japanese atrocities – Known as “Nanjing’s Living Buddha”

pressured Japan exceptionally hard. Exports were halved and the incomes of the population fell by one third. These developments gave the ultra-nationalists even more wind in their sails. Their solution to the crisis was not unlike Hitler's solution to Germany's corresponding struggle of the same period: the Japanese must improve their situation by conquering neighbours to gain resources – such as oil and agricultural land.

The nationalist military leaders and their supporters also held the western wave of colonisation in the 18th and 19th centuries as an example to follow. If the USA, Great Britain, France and the Netherlands could take over large lands and empty them for oil, minerals and agricultural products, Japan could do the same. The message was spread through

propaganda. Much of the population responded with cheers when agitators proclaimed that Japan had not lost a war throughout its 2,600-year history and therefore would never do so.

Critical voices were brutally silenced. Seven prominent politicians, including two prime ministers, were murdered by the ultra-nationalists. Both politicians and the general public learned to fear the Tokyo intelligence unit, which was known as the “thought police”. The unit was compared with the Gestapo of Nazi Germany, as they arrested thousands of people for “thinking dangerous thoughts” – thoughts that were critical of the emperor, government or army.

CONSCRIPTS GET DAILY BEATINGS

While Tokyo tightened its grip on opposition voices, the military expanded its power. In 1937, the army and navy were five times larger than at the

turn of the century, and much of the state budget went into developing military equipment and growing its arsenal.

To control the many new conscripts, the officers introduced rigorous discipline to the barracks. Physical punishment and beatings became commonplace in Japan's military, where officers occasionally set the conscripts to beat each other to impose military order. “Sometimes in the evening we couldn't eat our food because our faces were so swollen,” conscript Toyoshige Karashima recalled.

Concurrently, soldiers were exposed to indoctrination, which was more powerful than the version given to the population. The young men in Japan's armed forces learned that since the military was directly under the emperor, any order from a superior must be considered a

ABUSES:

In China, Japanese soldiers and guards used civilians as well as captured Chinese soldiers as targets for bayonet training.

“The first time you still have a conscience and feel bad,” Japanese Officer Yoshio Tshuchia explained.

“But if you are labelled as courageous, honoured and given merit ... that will be the driving power for the second time. If I'd thought of them as human beings I couldn't have done it. But because I thought of them as animals or below human beings, we did it.”





JAPANESE DR MENGELE USED CHINESE AS GUINEA PIGS

Military Physician Ishii Shiro's Unit 731 mistreated thousands of Chinese. The atrocities were long unknown to the world because after the war, the US hid the atrocities in return for sharing the results.

DISEASES: Unit 731's physicians infected subjects with anthrax, cholera, plague and smallpox – the aim was to develop both vaccines and biological weapons.

CONTAGION: plague-sick rats were thrown over Chinese cities, anthrax poured into drinking water, and anthrax-infected chocolates distributed to children in Nanjing to find the most effective way to spread biological weapons.

EXPOSURE TO EXTREME COLD: in order to investigate the effect of frostbite, Shiro's subjects' arms or feet were frozen until they were hard as stone – before being slowly thawed out.

PRESSURE CHAMBERS: the Japanese knew the effect of high pressure on the human body. Living Chinese were placed in pressure chambers, and the pressure slowly increased. Everything was filmed.



In a huge "factory" in Pingfang in North China, Unit 731 tested biological weapons.

“We called the Chinese ‘Chancorro’, that meant below human”

divine command. When Japan embarked on a campaign, it was a holy war.

Officers constantly bombarded the soldiers with the idea that Japan was superior to Asia and that the Japanese deserved more land. The rhetoric was specifically directed at China, where since 1931 Japan had ruled over a de facto colony, Manchuria. The Japanese, at best, considered the Chinese in northern China as cheap labour and peasants who could, if necessary, be removed to make room for more Japanese colonists. It was such a simple and barbaric solution.

Yoshio Tsuchiya served in Japan's secret military police in Manchuria and has since explained how the Japanese looked at their Chinese subjects.

“We called the Chinese ‘Chancorro’, that meant below human, like bugs or animals. Whereas the Japanese are a superior race, which had been in existence for 2,600 years, the Chinese were inferior. The Chinese didn't belong to the human race. That was the way we looked at it.”

Many of the soldiers who murdered and raped the regular everyday people in Nanjing's streets and homes in the winter of 1937-38 had a similar view of the Chinese.

Shockingly they considered that putting a bayonet into a Chinese child was just like smashing a cockroach.

In Japan, the people were told nothing about the brutal massacres in China's capital. And in their ignorance, the soldiers were instead hailed as heroes, and Nanjing's fall celebrated with marches and parades through the country's large cities.

However, Chinese forces struggled on deeper inside China. The battles were incredibly brutal and new Japanese conscripts were welcomed to the front and initiated with violent rituals where they had to prove their worth by killing Chinese civilians or prisoners of war with bayonets, knives or swords.

PACT WITH HITLER AND MUSSOLINI In the early autumn of 1940, Japan invaded northern French Indochina in an attempt to cut off the Chinese from the south. Beyond China lay dreams of a massive empire that would dominate half of the world. The possibility of such a situation was irresistible.

Japan's leaders, however, realised they could not wage major campaigns alone – they needed to secure a crucial alliance

with like-minded rulers in Europe: Adolf Hitler of Germany and Italy's Benito Mussolini. Japan's desire for an alliance with the two European leaders was satisfied on 27th September, 1940.

In Berlin the streets were draped with the flags of Germany, Italy and Japan surrounding the Japanese embassy where Japan's ambassador to Germany, Saburo Kurusu, met at an historic moment to add his signature on the same document as Foreign Minister Joachim von Ribbentrop from Germany and Foreign Minister Galeazzo Ciano from Italy.

With the Tripartite Pact, Japan, Germany and Italy promised to help each other politically, economically and militarily if any one of the countries was attacked by a fourth country that was not yet active in the war. Hitler personally attended the session – clearly satisfied that thanks to the new alliance, his European opponents would soon have another powerful enemy to deal with.

THE USA BLOCKS OIL FOR JAPAN

The Japanese hoped that the pact would ensure the United States would also have to wage war in Europe when Japan and the US began hostilities – something Japanese leaders considered inevitable.

The USA had long been an outspoken critic of Japan's invasion of Manchuria, and American companies had banned exporting important resources such as iron, steel, airplanes and aviation fuel to the resource poor Japan.

The Tripartite Pact and Japan's continuing attempts to subjugate French Indochina frustrated USA's President Roosevelt who then reconsidered taking

NEIGHBOURS WERE CONQUERED OVER 30 YEARS

In 1910, Japan intimidated Korea into surrender without war. The annexation of the neighbouring country was the start of 30 years of constant conquest. Eventually, the Imperial Army claimed land from Manchuria in the north to New Guinea in the south.



Japanese invasion

Border of Japan empire in August 1942



22ND AUGUST, 1910: KOREA

■ Invasion ensures control of Korea's resources and creates a buffer against Russia in the north.



19TH SEPTEMBER, 1931: MANCHURIA

■ Japan uses Manchuria's coal, iron, farmland and space for the growing population.



7TH JULY, 1937: CHINA

■ Japan wants to secure important Chinese resources.



5TH SEPTEMBER, 1940: FRENCH INDOCHINA

■ The invasion is meant to cut off Chinese troops at war with Japan, from supplies in Indochina.



7TH-8TH DECEMBER, 1941: HONG KONG, MALAYA, THAILAND, WAKE ISLAND, GUAM AND GILBERT ISLANDS

■ While the bombs rained down on Pearl Harbor and US bases in the Philippines, Japan's army and navy began a series of attacks. The goal is to establish military forts and defeat the Allied forces on Guam, Gilbert and Wake Island and to harass British forces in Hong Kong. In Thailand, the Japanese want to secure ports and airports prior to the attack on the oil-rich Burma, while tin and rubber awaited in Malaya.



10TH DECEMBER, 1941: PHILIPPINES

■ Japan launches the attack on the islands' American bases.



16TH DECEMBER, 1941: BRITISH BORNEO

■ The mission is primarily to capture oil fields.



10TH JANUARY, 1942: DUTCH EAST INDIA

■ The Empire secures raw materials, especially oil.



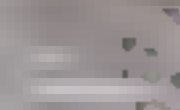
15TH JANUARY, 1942: BURMA

■ The country is rich in oil fields, mines and rice.



23RD JANUARY, 1942: SOLOMON ISLANDS

■ Japan cuts supplies to Australia.

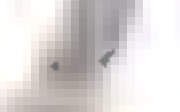


21ST JUNE, 1942: NEW GUINEA

■ The island is strategically important to Japan.



GILBERT ISLANDS



SOLOMON ISLANDS



NEW GUINEA



SOLOMON ISLANDS

JAPANESE ARMY

Number of soldiers

1937	336,000
1938	590,400
1939	804,400
1940	910,000
1941	1,032,500
1942	1,087,500

Everywhere the Japanese soldiers appeared, the flag of the armed forces waved.

“On 1st December, 1941, the attack plan was presented to Hirohito”

action and following up a step he had long hesitated to take: an oil embargo.

The stop of American oil would be a tough blow for Japan. The country was entirely dependent on imported oil and oil from the USA in particular, to keep the army and air force capable of fighting.

But an oil embargo would also be an escalation, which could lead to war, Roosevelt believed. The President waited until 25th July, 1941 before deciding. That day, the US government announced that all Japanese funds in the US would immediately be frozen and an oil embargo had begun.

MOVING TOWARD PEARL HARBOR

The cessation of oil exports to Japan was supported by Great Britain and the Dutch exile government, which controlled the oil fields in Dutch East India. From their perspective, it was necessary for Japan to conquer Southeast Asia's oil fields and become independent of imported oil.

Knowing that a conquest war would cause the Americans to declare war on Japan, the Japanese leadership secretly began working on a new, daring plan: to disable the USA by hitting the Pacific's fleet hard and fast without warning.

On 24th September, 1941, the Japanese Navy's intelligence service sent a top secret

message to their spy in Hawaii, Takeo Yoshikawa. Hawaii's Pearl Harbor was home to the majority of the US's mighty Pacific naval fleet.

The message to agent Yoshikawa told him to make vessel reports with regard to warships and aircraft carriers, noting those at anchor, in the quay and at dock.

While Yoshikawa was secretly monitoring and reporting movements of the giant American warships, diplomatic negotiations with the USA were slowing to a standstill. The Japanese were stubbornly refusing to comply with USA demands to withdraw from China and sever ties with Nazi Germany while still pretending to be committed to finding a diplomatic solution.

Meanwhile, the planning of a surprise attack on the US Pacific fleet continued at full speed back home in Japan.

AMERICANS TAKEN BY SURPRISE

On 1st December, 1941, the plan of attack was presented to Emperor Hirohito, and the 40-year-old monarch approved it and gave his generals their wish.

The six Japanese aircraft carriers *Akagi*, *Kaga*, *Soryu*, *Hiryu*, *Shokaku* and *Zuikaku* had already travelled half the way from

Japan to Hawaii with hundreds of Japanese bombers on board. Early in the morning of Sunday, 7th December, 1941 – Monday, the 8th Japanese time – the six aircraft carriers with their load of bombers found themselves less than two hours' flight from Hawaii, and at just after 06.00, the first wave of attacks launched.

At 07.55 the first bombs fell upon Pearl Harbor's giant warships and the totally unprepared naval troops. Nearby, other bombers immediately incapacitated 200 US aircraft at nearby airfields. Over the next two hours, hundreds of Japanese aircraft swarmed around the American naval harbour in two devastating waves, while their bombs and torpedoes crashed into American ships.

When the bombing run finished, eight US battleships, three cruisers, and several smaller ships were either sunk or severely damaged, and more than 2,400 Americans lost their lives. In comparison, only 29

Japanese aircraft had been shot from the skies.

“At 07:55 the first bombs fall over Pearl Harbor's giant warships”.

JAPAN EXPANDS ITS EMPIRE

While the Americans were trying to get over the shock of the situation, the Japanese acted quickly. Two days after the attack on Pearl Harbor, Japanese troops invaded Hong Kong, the Gilbert Islands, Malaysia, Thailand and the US Pacific islands of Wake and Guam.

Japan took the first, decisive step on its way to a great Asian Pacific empire, and in the following months, no army could stop the Japanese soldiers from marching across Southeast Asia.

Unfortunately for the Japanese, the damage to Pearl Harbor – despite the many destroyed warships and planes – was manageable for the Americans. Essentially,

EYEWITNESS

Commander Mitsuo Fuchida/Pearl Harbor 1941

NO RETURN FIRE



“Veering right toward the west coast of the island, we could see that the sky over Pearl Harbor was clear. Presently the harbour itself became visible across the central Oahu plain, a film of morning mist hovering over it. I peered intently through my binoculars at the ships riding peacefully at anchor... It was 07.49 when I ordered my radioman to send the command, 'Attack!... Leading the whole group, Lieutenant Commander Murata's torpedo bombers headed downward to launch their torpedoes, while Lieutenant Commander Itayay's fighters raced forward to sweep enemy fighters from the air... No enemy fighters were in the air, nor were there any gun flashes from the ground.”

In a single stroke, Japan's attack on the Pearl Harbor naval base in Hawaii drew the United States into World War II.

all Pearl Harbor aircraft carriers were out of the port during the attack, and the Americans did not lose a single one of those vessels. The US carriers would prove to be the deciding factor in future naval battles.

Furthermore, the Japanese admiral in charge of the attack on Pearl Harbor, despite a myriad of calls from his officers, never performed a third wave of planned attacks. The admiral feared losing a large number of aircraft, and Pearl Harbor's torpedo warehouses, ship docks and fuel stores survived undamaged from the attack.

The Americans could quickly rebuild the base, and soon the American war machine would run with an effective power that could match the Japanese. ■



Torpedo bombers launching in the morning on 7th December, 1941 from the Japanese aircraft carrier Akagi and headed for Pearl Harbor, where the US Pacific fleet was anchored.





BLITZKRIEG DEFEATS EUROPE

1939-1941

May 1940. Hitler's Panzer Army rumble through France's defences.

Within six weeks, the Germans have one of the most powerful armies that the world has ever seen. Over the next two years, forcing blitz torn Europe to her knees while The Third Reich Forces thunder through the Balkans, North Africa and Stalin's massive Soviet Union.

1939-41

1939, 1 Sep- tember Hitler's troops go into Poland starting WWII.	1940, 9 April, German troops invade Denmark and Norway.	10 May Hitler's Panzer Division moves into Holland and Belgium.	13 May General Heinz Guderian breaks through French defences at Sedan.	22 June France finally surrenders to the Germans.	1941, 22 June Hitler orders the attack on the Soviet Union.
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1939 → 1940 →

→ 1941 →

Timeline: 10.00 May 13, 1940. Carving up the skies there's an infernal howling from the plummeting Stuka bombers that are flying over Sedan in North-eastern France. Over the next six hours incessant banging German artillery, supported by the Luftwaffe, fly freely on the French positions behind the Meuse River, south of the City.

From the French bunkers, the artillery and tanks are fighting back, yet the German Elite Corps Regiment Gross Deutschland is met with only a scattered resistance, when they cross the river in their rubber boats. In less than an hour, the Germans have created a bridgehead on the south bank.

At midnight, their engineers start to build pontoons over the Meuse and their armored division of 1, 2, and 10s tanks can now cross over: The most concentrated collection of tanks that the world has ever seen – numbering 850 – rattling directly onto French soil, followed by more than 20,000 vehicles and 60,000 soldiers.

During the days leading up to the attack, the Germans had positioned 1,800 tanks in the shelter of the Ardennes Forest – an area the French generals had perceived as completely impervious to a modern army.

Because of this, the French are completely unprepared for the German attack on Sedan.

In the few short hours after the first German

troops cross the river, panic and mayhem breaks out within the

flustered French defences.

Rumours spread that German tanks are already in the town of Bulson, seven kilometres south of Sedan. For fear of being caught in a pincer movement attack, the French troops scatter. A lot of hysteria ensues. German tanks are everywhere and soldiers start receiving orders with mysterious – nonexistent – commands to retreat. The stage is set for the fall of France. Just seven weeks later, the Nazi flag is flying over the middle of Paris.

Regroup:
The plan for the invasion of France had to be changed at the last minute as it fell into the Allied's hands

NO MORE TRENCH WARFARE

The attack on Sedan is the perfect demonstration of the Germans' new and effective war tactic, Blitzkrieg.

Against the Germans' will, World War 1 turned into bloody trench warfare, every attack involved a heavy loss of soldiers. Two men armed with

machine guns could fire from their trench putting 1,000 advancing foot soldiers in a state of checkmate.

In order not to repeat the suicide-like attacks from WWI German generals developed a new war tactic in the 1930s. Inspired by Napoleon's words that "the art of war boils down to one simple principle: Concentrate a larger force than the enemy at a given place", the German general Heinz Guderian's idea behind the creation of Germany's new, hyper-efficient armored divisions was formulated.

So far, tanks had been used as scattered support for cavalry and infantry, but Guderian formed the major tank division, which could move with great speed, accompanied by moving infantry and artillery. Speed and manoeuvrability was a top priority and the majority of German tanks were small, fast and manoeuvrable,



German soldiers celebrating having fought their way through to Dieppe on the French Atlantic coast.

making a strong impact.

As a groundbreaking addition Guderian had a specific role for the Air Force in his new tactics. Until then, the Air Force fought its own, isolated war on airspace. Now, the German Stuka became an invaluable weapon against enemy positions and tanks on land.

Luftwaffe, tanks, infantry and Special Forces had to move quickly and as a single iron fist. Guderian installed radios in all German Panzer tanks. During the attack on France communications equipment gave the Germans significant advantages. The French didn't have radios and in order to pass information, French tank officers had to walk or ride from tank to tank to pass on their instructions.

FRANCE BARRICADES ITS BORDERS

The endless trench battle of the First World War had been Germany's major play; with their fast and well coordinated onslaught; by contrast, the French had learnt a very different lesson from the 1914-18 war. The French believed that the First World War, more than any other, proved that strong defences could keep any attack at bay. And because of this, the Army Command created immense fortifications along the Franco-German border – Maginot Line. Defence installations included concrete fortifications, large gun stores and even an underground railway, which could carry supplies back and forth. The most obvious risk was that if the enemy troops reached behind the Maginot Line, there was no plan B: but it was not considered necessary, when



HEINZ WILHELM GUDERIAN / 1888-1954

THE BLITZKRIEG GENERAL

■ During World War 1 the German General Heinz Guderian had as a soldier witnessed Germany's grueling and futile position on the Franco-German border. It made him understand that only large groups of air-supported tanks could break through

enemy defences and determine a battle quickly and with minimal human cost. In 1937 Guderian described his theories in the book "Achtung – Panzer!" The book quickly became some of Hitler's favorite literature. And Guderian subsequently became one of the Führer's most trusted and respected commanders.

Inventor of the Blitzkrieg doctrine – Panzer General

After the German armored forces had surrounded the French forces at the Maginot Line, German soldiers armed with flame throwers used them to suppress the barricaded French.

Stuka roll-submersible bombs at up to 408 km/h. Dropping them to the terrifying howl of sirens coming from under the aircraft's cockpit.

into a German trap. While the French and the British sent virtually all available munitions to the Front in the north, Heinz Guderian and his Panzer troops break through at Sedan and storm west towards the English Channel, south of the French and British forces. In just two weeks Guderian's tank soldiers fought through to the Channel, leaving both the French and British in Holland and Belgium where they were isolated and cut off from supplies.

British expedition forces had to surrender and 338,000 British soldiers were evacuated to Britain via the beaches of the port city of Dunkirk in warships, fishing boats and hastily convened civilian boats of all sizes. The French troops were less fortunate. Nearly all of the 1.7 million soldiers in Holland and Belgium had to surrender. At the same time their artillery, cannons and tanks fell into the hands of the thousands of Germans.

So now France was only protected by small groups and poorly trained reserve troops – no match for the rampaging and confident Germans. On June 10, the French Government in Paris surrendered, and the Germans took the Capital without a fight four days later.

"It was pointless to fight anymore", stated the French General Maxime Weygand. "We have gone to war with an army from 1918 against a German army from 1939. It is pure madness."

On 22 June France conceded defeat to Germany. Ironically the Maginot Line was never broken – the Germans had simply

the outbreak of war. The Maginot Line's western most point was south of Luxembourg, and therefore there was a need for forces to extend the defence line right up to the coast of the English Channel. Since Germany's invasion of Poland in early autumn 1939, the Northern French troops also enjoyed the company of the British expedition forces. Together, the French and British formed a formidable force.

FRANCE WALKS INTO A TRAP

Three days before the attack at Sedan, German troops invaded Holland and Belgium. French and British forces rushed into the two Benelux countries to counter the German invasion; waltzing straight

the French commanded a 900,000-strong army – in their eyes the world's best equipped – there were almost four million men in the reserve and the most impregnable fortifications in history.

French troops were not located on the Maginot Line, or their generals who had been stationed in Northern France before

BLITZKRIEG ABC:

LIGHTNING ADVANCES MEAN VICTORY

Having learned from defeat in the First World War trenches, in 1930 Germany's military command developed a new strategy. By penetrating enemy territory with tanks and soldiers supported by the Luftwaffe bombers, the German army avoided lengthy battles with heavy losses. The tactic was dubbed "Blitzkrieg" and during WW2 this tactic was copied by the Allied troops.

1: BOMB THE ENEMY'S WEAKEST POINT



■ Stuka-crash bombers (A) attack enemy tanks and defensive positions, while artillery guns (B) and tanks (C) intensely bombard the weakest point in the enemy defence line to make a breakthrough.

2: SMASH THE ENEMY'S LINE OF DEFENCE



■ Tanks (A) break in a tight wedge through the weakest point in the enemy's line of defence so that the bombardment has weakened it. Soldiers in armored vehicles (B) immediately follow. Artillery guns (C) stand ready to provide necessary assistance.

run around the dreaded line of defence. Soldiers from its fortifications were among the last to surrender to German supremacy.

BALKANS FALL IN ONLY A FEW WEEKS

The invasion of France was a crushing demonstration of the Germans' new Blitzkrieg concept, and how effective it was proving to be.

When Germany invaded Poland in September 1939, their tactics were not yet fully developed. Until 1937 Polish cavalry had trained to use both sword and lance which gave the Poles good resistance. But neither the invasion of Denmark – who quickly surrendered – nor the conquest of the impassable Norway had given the opportunity to test Blitzkrieg fully.

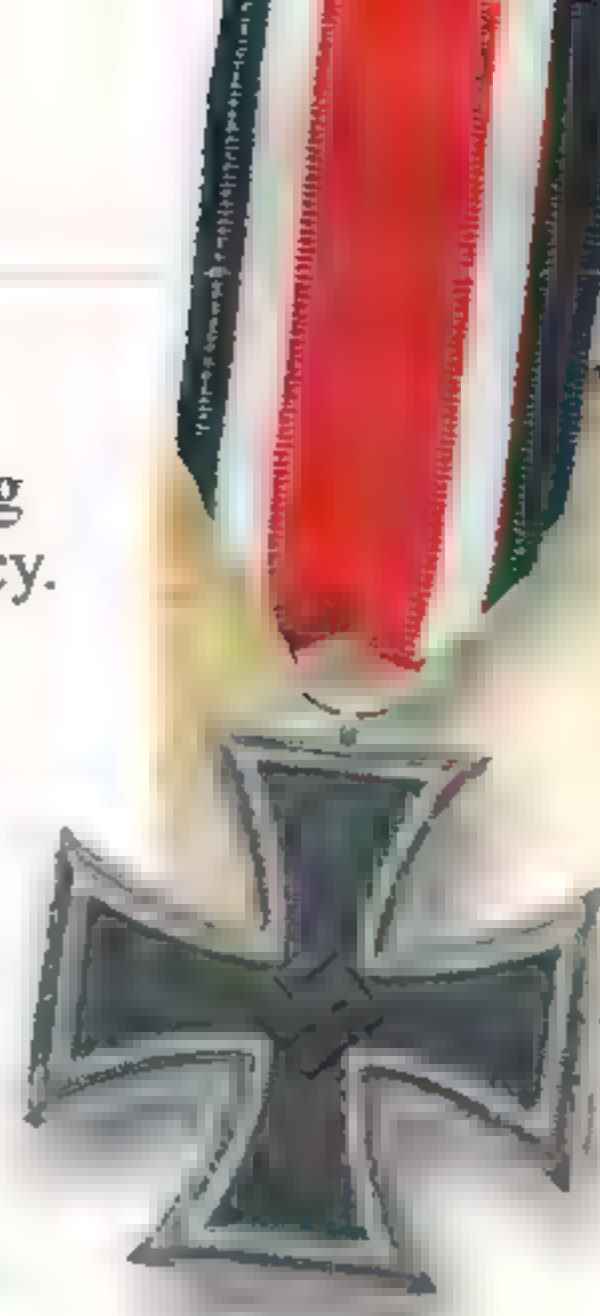
With the defeat of France, it was clear that almost all of Europe was suddenly in the Germans' sights. And it was not long before Hitler's tanks rolled on.

Germany's ally Italy struggled to meet Mussolini's dream of taking control of the Mediterranean, but the fascist's campaign was stalled. In early 1941, Hitler sent troops to the Mediterranean to help.

It was a real show of force. The Germans stormed Yugoslavia en route to Greece and she was overwhelmed in just 11 days. Along the way, they lost only 151 German soldiers.

The lightning advance came off the back of the Greek and the British troops, who were in Greece to help in the fight against the Italians. After less than three weeks of fighting, the British evacuated to Crete and Greece surrendered.

In North Africa, Erwin Rommel created XIXth Afrika Korps, which would prove to be a mammoth task for the British troops



In the spring of 1941, two of the world's strongest armies clashed. Nevertheless, the French Capital, Paris, was surrendered to the advancing Germans in the course of just one month.

in Libya and Egypt. Rommel was behind Guderian and really understood the power of Blitzkrieg. According to Rommel quick manoeuvres, sharp decisions and constant movement was the key to victory:

"We have to look at war today as cavalry States did in the past. We must lead the Panzer divisions, which were the cavalry

units; we must delegate orders from armored tanks, while we are racing forward, just as orders were given from the saddle."

It took one and a half years for the British to get the better of Rommel and his two divisions in North Africa.

17.000

civilians died when Luftwaffe bombed Belgrade during the campaign in the Balkans.

BLITZKRIEG ON A GIANT SCALE

The fighting in North Africa and the Balkans was considered to be gentle in comparison to the campaign Hitler had hoped for: a Blitzkrieg on a giant scale directly into the Soviet Union's extensive land masses. The goal was to secure raw materials for Germany's war machine, land for the German people and a total annihilation of Bolshevism, which Hitler hated as much as Judaism. "The war against Russia will be a war that cannot be

GERMAN AND FRENCH ARMIES

	Germany	France
Soldiers	2.5 million	5.0 million *
Tanks	2,400	3,500
Artillery	7,500	10,200
All vehicles:	120,000	300,000
Combat aircraft	1,200	1,100
Bombers:	1,700	1,000

* Including reserves – France's reserve army consisted of 900,000 soldiers.

fought in a chivalrous manner. The game is a battle between ideologies and race and it must be fought with an unprecedented ruthlessness and relentless hardness". said the Führer, March 30, 1941.

The order came barely three months later, on June 22 at 3:15 the password "Dortmund" crackled over the radio to more than 3.6 million soldiers, 3,350 tanks and 2,000 aircraft stationed along the border with the Soviet Union from the Baltic Sea in the north to Romania in the south. Operation Barbarossa, the greatest campaign of the war began.

The opponent was the world's biggest army. On the Soviet Union's western front alone, Stalin commanded more than 2.6 million soldiers, while the country's total strength consisted of five million men. The communist dictatorship's total number of battle tanks reached the awe-inspiring number of 23,000.

However, with the Red Army's equipment outdated – only a third of the tanks were combat ready. The Red Army suffered an equally important and catastrophic shortfall of skilled officers. The paranoid Stalin had murdered up to 90 per cent of all generals and 80 per cent of all colonels for fear that they would

3: ATTACK DEEP



■ Tanks (A) attack field headquarters and create confusion by putting communication lines out of play. Meanwhile armored personnel carriers (B) and soldiers in trucks (C) continue deep into enemy territory, accompanied by tanks. The goal is to encircle the enemy and defeat supply troops.

4: DEFEAT THE ENEMY



■ When the enemy forces are surrounded, auxiliaries (A) go into action. They go towards enemy soldiers, while artillery guns (B) support them with an aggressive bombardment and surround the opposition. The surrounded enemies often choose to surrender because of their hopeless situation.



A satisfied Hitler, August 26, 1941 on a visit to his troops on the Eastern Front.



ADVANCE: June 22, 1941 the Germans roared into the Soviet Union, where they captured and killed hundreds of thousands of Soviet soldiers.

PURGE: On the heels of the army came the SS, who murdered 1.5 million Jews and tens of thousands of communists, partisans, gypsies, etc.

“ Soviet vast land expanses proved ideal for the German Panzer division ”

threaten his position. The result was an army so steeped in fear of reprisals that no one dared take the initiative on their own.

Furthermore, Stalin had learned nothing from the fall of France: the Dictator had stationed his troops close to the Soviet Union's nearly 2,000 km long border to the west, rather than letting them take up positions further inland which would be easier to defend. Hitler's generals could not have wished for the outcome to have been any better.

THREE PRONGED ATTACK

The Germans stormed into the Soviet Union in three major groups. Army Group North attacks along the Baltic coast toward Leningrad, while the powerful Army Group Amid, Guderian's Panzer Division headed due east toward Moscow. Army Group South ran towards – the Soviet Union's pantry – Ukraine, and the oil fields of the Caucasus. Vast Soviet

land expanses proved ideal terrain for the German Panzer Division. During the summer of 1941, tanks and mobile infantry thundered onwards, while the Luftwaffe Stuka and their war planes bombarded Red Army positions. Again and again, the Germans managed to surround huge groups of Soviet soldiers. In Minsk, Belarus, the Germans formed a ring around the Russians and 300,000 Russians, 2,500 tanks and 1,400 artillery assets fell into German hands. In Kiev, Hitler's troops encircled more than 600,000 soldiers.

The Germans overpowered the whole of the German-Russian conflict, taking 5.7 million prisoners of war.

As a result of the Germans' deliberate policy of extermination, 3.4 million of them were executed or died of starvation, disease and exhaustion – the vast majority in the first months of the war. Hundreds of thousands of others were probably shot down as they tried to surrender. “Only in exceptional circumstances should we take prisoners from the Red Army. As a rule, Soviet prisoners should be shot, and that includes women who serve in the Red



LOGISTICS PROBLEMS: After a summer of conquests which drove the German campaign forward, it all came to a standstill when the Russian rains in October 1941, turned the roads to mud. Even before this Germans were in trouble: The huge distances stretched supply lines to the extreme, and often tanks and trucks ran out of fuel.



GERMAN WINTER WAR: The Germans continued to advance, yet by November 1941 it was so cold that soldiers could not fight anymore. No one had made sure there were sufficient winter uniforms and many froze to death.

Army", read the order to the German soldier Bruno Schneider. Hitler had wanted a war of extermination, and he got it.

Also millions of civilians were killed when the Germans advanced. After the war, a German soldier recounted on one of the many mass executions that took place throughout the conquered Soviet Union: Hundreds of Jews were ordered into a mass grave after which two SS officers shot them all: then came the turn of the Russians.

"People were again herded forward and had to lie on top of the dead. A young girl – she must have been about 12 years old – screamed in a shrill voice: 'Let me live. I'm still only a child!' The girl was caught, thrown into the grave and shot".

BLITZKRIEG COMES TO A HEAD

While the mass destruction continued with uncanny efficiency in the conquered territories throughout the autumn of 1941, their Blitzkrieg tactics began to cause the Germans problems. Armored units had moved forward with such a high speed that subsequent infantry did not have a chance to defuse all the Russian soldiers as they passed. They sabotaged the German supply lines, which were already severely stretched by the huge distances involved. Field rations, ammunition and fuel became harder and harder to get to the Front.

With the arrival of the heavy autumn rain, the problems increased. The rules of Blitzkrieg were speed and manoeuvrability,

but now with the rain drenched fields and mud sodden roads the way became impassable. And in the process the Red Army gave the Germans a more determined resistance. The Germans storm over the steppes was replaced by a slow and laborious advance of sodden soldiers.

"With our beards we almost look like a submarine crew, and our hands are crusted in dirt. When did we last wash our clothes or ourselves? It has to be months ago. We are stiff from lying in trenches all day long. We can barely feel our own feet because it's so cold! But you can feel the lice", wrote the pessimistic German sergeant Schiff in his diary on November 2.

At the time, only about 50 of Heinz Guderian's original 600 tanks were able to run and shoot. The Russians had, by contrast, fuelled the war industry and between 1 October and 15 November had increased the amount of tanks at the Front from 450-700.

"We have seriously underestimated the Russians, the country's size and climate impact. The realities of revenge", Guderian noted.

BLITZ IS BORN

In November came the cold. The winter hit with force.

Automatic

Germany's steel hand grenade was called "the mashed potato tanker" by the allies.

weapons failed, tank turrets, tracks and artillery guns froze, tanks could not start and frostbite raged among Hitler's soldiers. Over-stretched supply lines and poor planning meant that many were neither equipped with winter uniforms nor gloves.

In the morning on December 5 thermometers showed minus 30 degrees. The leading German units could see the spires of Moscow, but were not able to move from their positions.

"For weeks, we have been working without a break and without rest. Day after day we march through snow storms in -25 degree cold with our noses and feet so frozen that it makes one cry out in pain", wrote German Werner Pott in a letter to his family.

On 6 December, with the benefit of well-equipped and hardy new reinforcements from Siberia, the Russians launched a counter-offensive. Hitler ordered his troops to dig in and not to give a single inch.

The Germans found themselves in the exact situation Blitzkrieg should have prevented: a protracted position within the war. Over the next three and a half years, the Soviet Union took centre stage leading the way with its endless reserves of raw materials, weapons factories and especially with its new recruits. It slowly but surely helped to wind up the German war machine. Ironically, by adopting the German's tactics, the Red Army Blitzkrieg tactics hit Hitler's men with an equally brutal force just as it had crushed the Soviet armies a few years earlier. ■





BATTLE OF BRITAIN

1940-1941



In July 1940, only England remains as a bulwark against the Nazi scourge.

Hitler hatches a plan to crush the British Empire. 400,000 soldiers would be transported across the English Channel and occupy the British Isles; but first the Luftwaffe must usurp the airspace over the channel. During the next three months, the Royal Air Force fight a decisive battle against the superior Luftwaffe.

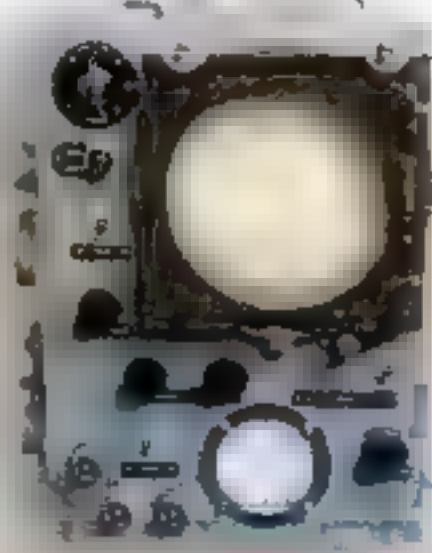
1940-41

July 1940

Nazi Luftwaffe launch air battle over Britain.

13 August 1940

Germans dish out attacks on air bases and radar stations.



6 September

1940 After two weeks of bombing the RAF is close to collapse.



7 September 1940 Luftwaffe bombs London for the first time.



The newspaper "Call Bulletin" reports on August 15, 1940, of bombings on British aircraft factories, docks and military bases.

A 25-year-old British fighter pilot David Crook made a desperate radio call to the two other pilots in his patrol. Above him swooped a nine strong barrage of German Messerschmitt fighters against his single Spitfire. Suddenly a bullet whizzed right over his head, Crook banked the plane to the left and dived off to hide in the clouds. At over 500 km/h he cut through the air and out from the cloud to face a German dive bomber; a Stuka, ahead of him. Crook fired the Spitfire's machine guns against the enemy, sending a flurry of bullets up against a German Messerschmitt and emptied his ammunition against a second.

The dive bomber's hull exploded, the plane crashing to the ground with a tail of smoke behind it. The British pilot followed fascinated as the burning debris hit the sea in a cascade of white foam.

When Crook reached dry land, shaken and trembling, he met up with one of the patrol's two other pilots. No one had seen hide or hair of the third, Peter Drummond-Hay. After two unsuccessful search flights, it became clear that he had died.

"The idea that Peter was at the bottom of the Channel [...], I could not get out of my head", Crook noted in his memoirs.

David Crook received his baptism of fire on July 9, 1940, in one of the first aerial

combats over England. But it was far from the last time that pilots of the Royal Air Force, RAF, had to fight in the skies above the English Channel. From July 1940, to May 1941, the German Air Force, the Luftwaffe, conducted a wave of massive attacks against both the RAF and British cities in a hope to defeat England. The intensive air war would be known as the Battle of Britain.

MONSTER INVASION

In battle

The first day, RAF bring down 10 German planes while Luftwaffe only ram two British fighters.

In early summer 1940, the Nazi threat already hung over the UK. In June, France had succumbed to the German occupation forces and so Western Europe's coastline from the Arctic Circle in the north to Spain in the south, was in German or German-friendly hands. Only the English Channel, less than 40 km wide, separated England from the German war machine. The British army had left huge quantities of military equipment – including 64,000 vehicles and 70,000 tons of ammunition – in continental Europe during the withdrawal from the French city of Dunkirk, deserted, abandoned.

Hitler was convinced that the British had been pushed far enough and were now ready to make peace. But British Prime Minister, Winston Churchill, who had only been in office since May 10, 1940, was prepared to fight to the last. In a stern

speech to the House of Commons on June 4, he flatly refused to agree to a peace treaty with the Nazis and called for resistance:

"We shall fight on the seas, we shall fight with growing confidence and growing strength in the air, we shall defend our island whatever the cost, we shall fight on the beaches, we shall fight on the landing strips [...]; and we shall never surrender".

On 16 July, Hitler took up the challenge of Churchill's renewed retaliation and presented his invasion plans. Under the code name 'Operation Sea Lion', 400,000 soldiers were transported across the English Channel with the goal to crush all British resistance. The invasion was to take place in September, but the Luftwaffe and the German Navy Kriegsmarine should first take control of the Channel.

The Luftwaffe was feared across Europe. German pilots had gained valuable experience during the Spanish Civil War, where they fought under Franco, and during the first 10 months of WWII, where the air fleet demonstrated its strength during attacks on Poland and France.

However, the unyielding onslaught of war had already drained Luftwaffe

British radars pick up a German aircraft and RAF pilots are in the air in just 10 minutes.



*Squadrons of
Messerschmitt fighters
accompanied the
German bombers
during raids over
England.*

THE BLITZ GAVE THE AIR FORCE BREATHING SPACE

When on September 7th, the Nazis abandoned military targets and instead directed their attack against cities such as London, Cardiff and Liverpool, the RAF was close to collapse. Now the

RAF's pilots had a much needed rest. It also gave mechanics time to repair the shattered aircraft. The RAF continued to defend England despite the devastating ravages from Luftwaffe onslaughts.

PIVOTAL MOMENTS



resources. Almost a third of the air force; about 3,000 aircraft had been lost in the war's first year, and German aircraft production could not keep up. Worse still, the Luftwaffe lacked experienced pilots to replace the dead.

AIRCRAFT PRODUCTION ESCALATES

On the other side of the Channel was the commander of Fighter Command – RAF unit of fighter jets – Hugh Dowding, who convinced politicians that a powerful air fleet was vital to stem the Germans' advance. From May to July 1940 aircraft production escalated to an unprecedented level – in a single week production plants turned out up to 300 new aircraft.

Dowding built a revolutionary air defence system. The Dowding system consisted of a chain of radar stations along the British shores, a team of observers who followed the planes across country where radar signals were no longer available, and a radio system which made it possible to guide the British fighter jets in the air. Although British aircraft production

during the summer of 1940 surpassed the Germans, the Luftwaffe was still considered the strongest air force. Luftwaffe chief Hermann Göring could draw on nearly 2,500 aircraft – the RAF only about half that number – when the Nazis attacked in the days around 10 July. Luftwaffe machines bombed convoys in the English Channel, but thanks to the effective Dowding system, were quickly greeted by British Spitfires and Hurricanes just 10 minutes after the British radars had spotted enemy aircraft. Because of the early warning system the RAF successfully shot down all 82 German aircraft between 10 and 23 July. During the same period, the Luftwaffe shot down 45 British planes.

CHANNEL SCARES PILOTS

British air bases had pilots on standby waiting every minute for news of a new attack and were therefore constantly prepared to take

to the air. They were often up at dawn and could have several raids to follow. Pilots were exhausted, constantly scouring the skies while concentrating on instructions over the radio. The fear of being shot down or being trapped in a burning plane was deep in the pilots' minds. For the New Zealand fighter pilot Alan Deere, who served with the RAF, the fear became a reality when he discovered that his machine was in flames.

"I tore desperately at my safety belt, pulled the cover back and made ready to jump out [...] but I did not come free of the machine, as my parachute got stuck. I writhed and twisted, but could not get in or out. The aircraft's nose [...] pointed straight down toward the ground, which came thundering towards me at a terrifying speed", he says. Alan Deere succeeded in breaking free, released his parachute and floated down to safety.

With the parachute as a last resort, the British pilots had a clear advantage. They landed on their own territory, while the Luftwaffe pilots dropped straight down into the enemy territory and ended up as prisoners of war. Under intensive attack, it was not uncommon that a downed British pilot returned to base and was flying again the same day.

The German pilots were fearful, especially of the return trip across the English Channel. Some could not cope with the hardships and developed bouts of anxiety called channel sickness. "Our conversation is only about the Channel and its



SPITFIRE

BRITISH MOVING AERIAL ACROBAT:

The British Spitfire's greatest strength was an extreme manoeuvrability. The thin blades' aerodynamic design reduced wind resistance and made the plane fast and agile. The vaulted cockpit secured the pilot a broad view of fighting in the air. In turn, Spitfire pilots complained about their armament. They did not believe that the fighter aircraft's eight 7.7 mm Browning machine guns gave enough firepower at enemy aircraft.

Year of build	1936
Topspeed	560 km/h
Machine guns	8
Shots	2,400
Motor	Rolls-Royce Merlin
Horsepower	1,030
Wingspan	11 m

“The aircraft’s nose [...] pointing downwards, came thundering towards me”

mass of water. It’s so uncomfortable for us all”, wrote the German pilot Siegfried Bethke on August 16. The fear of being forced to crash land along its dark waters, if the fuel tank ran dry, was deeply ingrained in the pilots’ minds. The German Messerschmitt aircraft only carried enough fuel for 650 kilometres, which meant that pilots could only be in the air for 20-30 minutes over England before they had to head for France.

GERMANS BOMB AIR BASES

Despite the success of the Dowding system, British anti-aircraft and artillery lacked the ability to protect their aircraft factories, airfields, radar stations and industrial plants. These vital installations were the target of the Germans’ next attack strategy, codenamed Operation Adler which began on August 13. When the Luftwaffe could not crush the British aircraft in the skies, they chose to destroy the RAF’s strongholds on the ground.

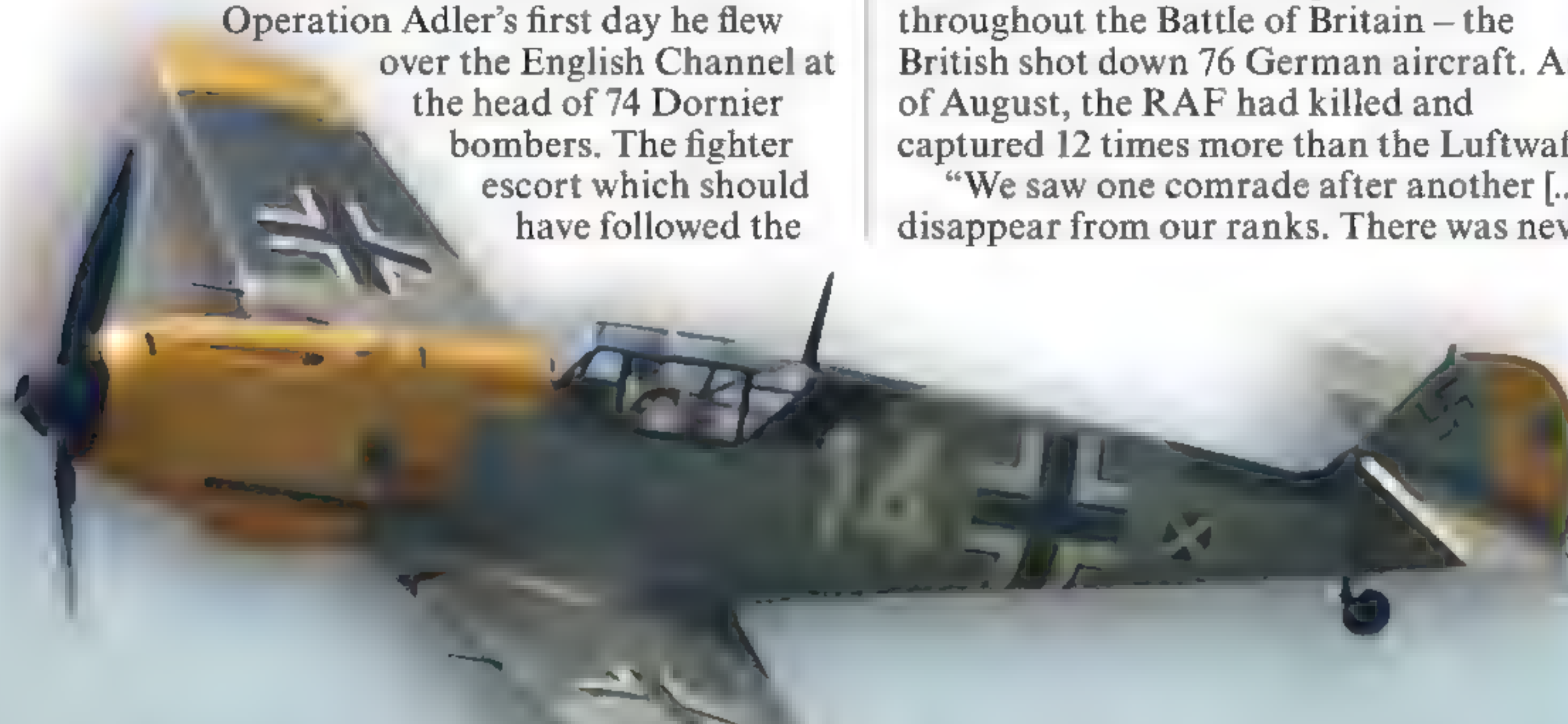
But the Germans had hoped for a variety of easy targets and they were sadly disappointed. The German Colonel Johannes Fink was amazed, when on Operation Adler’s first day he flew over the English Channel at the head of 74 Dornier bombers. The fighter escort which should have followed the

vulnerable bombers, was gone. Fink decided to continue the preliminary mission by hiding the squadron behind cloud cover. But just as the Dornier aircraft was about to drop its bombs, British Spitfires and Hurricanes came rushing toward them. They shot down five Dornier bombers and damaged several others. When Colonel Fink landed safely again near the French city of Cambrai, he was beside himself with rage.

This example was not unique: Bombers often lacked their protective escort – mostly due to a lack of communication. In the case of Johannes Fink, Luftwaffe headquarters had postponed the attack but the message did not reach the bombers. The episode showed a weakness of the German air force: When the German fighter pilots were in the air, they could only communicate between themselves not to bomb the pilots. In contrast, the British pilots were guided at all times by the Dowding system.

Operation Adler’s first day was not a success for the Luftwaffe, who lost more aircraft than the RAF. A few days later, the Luftwaffe completed 2,200 flights over British air bases – the largest number throughout the Battle of Britain – the British shot down 76 German aircraft. As of August, the RAF had killed and captured 12 times more than the Luftwaffe.

“We saw one comrade after another [...] disappear from our ranks. There was never



MESSERSCHMITT BF 109

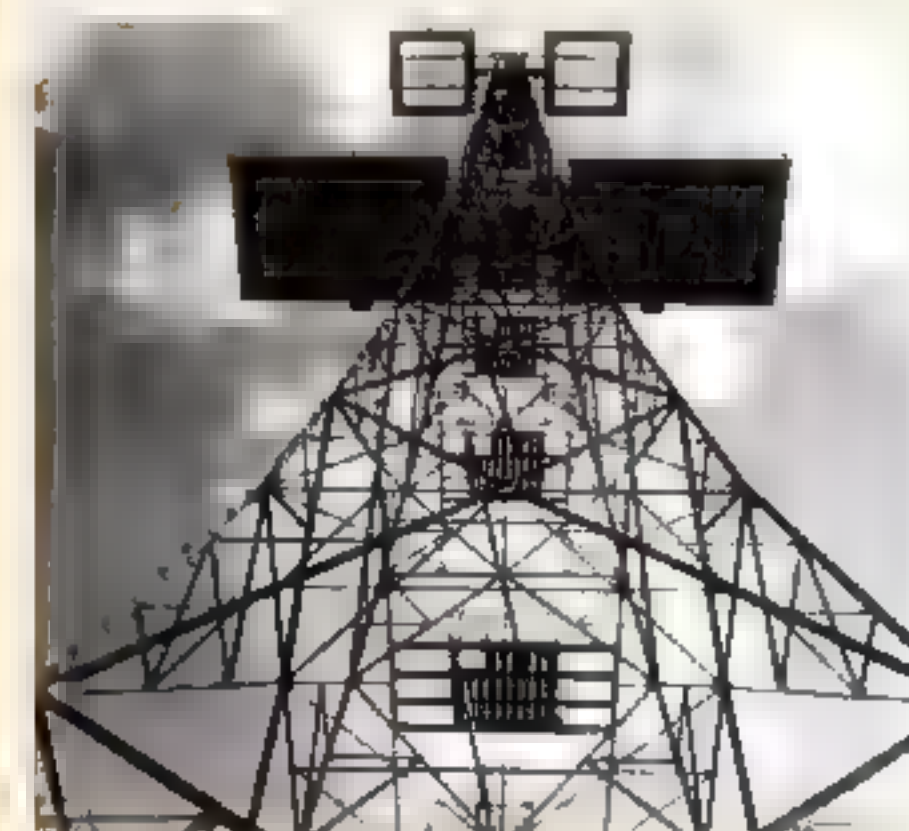
GERMAN’S CRASH DIVER: Luftwaffe could rise high and dive with ease. Unlike the Spitfire engine with its coughing carburettor spitting out during a nosedive, the Messerschmitt’s direct fuel-injected engine ensured a smooth flight. On the other hand, it had a cramped cockpit and poor visibility. With fighter aircraft 20 mm guns mounted in the wings and 7.9-mm machine guns above the engine, the plane was far superior during WWII.

Year of build	1934
Top speed	560 km/h
Machine guns	2
Shots	2,000
Motor	Daimler-Benz
Horsepower	1,175
Wingspan	10 m

DOWDING SYSTEM

ALERT SYSTEM SECURES VICTORY

Fighter Commander, Hugh Dowding, built a monitoring and warning system that exposed German aircraft, allowing RAF pilots to be in the air in 10 minutes before the enemy reached the English coast.



1 Along the coast was a network of radar stations. With a range of almost 200 km, radars could detect Luftwaffe aircraft shortly after they had taken off from their airbase in northern France. Information about the aircraft’s height, number and position were sent through to the filtering space.



2 In the filtering space at Fighter Command headquarters, staff placed trackers on a plotting table equipped with a card. They showed hostile aircraft position and direction. The information was sent to the operating room, where officers assessed how and where the RAF should be placed with a strategic counter attack. The officers then communicated their orders to the pilots by radio. Only six minutes had passed since the first radar signal.



3 Radar stations could only track the planes before they crossed Britain’s coastline. Therefore, they kept 30,000 volunteer observers at 1,000 observation posts looking out for enemy aircraft, as they reached the skies over England, and sent their messages to Fighter Command’s operations room.

On 29 December 1940 further air strikes set London on fire. Miraculously, Saint Paul's Cathedral was left in tact.

a day without another empty chair in the mess", a German pilot recalled.

Despite the losses during Operation Adler, the Germans had left British aircraft hangars and workshops in ruins, bomb holes in the runways and destroyed large parts of the telephone network.

In late August after one and a half months of fierce dogfights, the Luftwaffe decided to intensify their attacks to strike the final blow against the RAF.

RAF COLLAPSES

Because of poor intelligence, the Luftwaffe underestimated the British air fleet and their last ditch attack began with the belief that the RAF had only 300 fighters and they planned two weeks of intensive bombardments to entice "the last" British aircraft into the skies. From 24 August to 6 September, German bombs rained over airfields and industrial facilities.

The intensive attack targeted RAF machines and manpower: The German pilots made air strikes up to seven times a day. With losses of 120 pilots in a week

“ Göring could see 300 bombers
and 600 fighters on the way from the
English Channel bound for London ”

British Fighter Command was severely crippled and with a lack of experienced fighter pilots, the unit had to pull in pilots with only four weeks of flight training behind them. The RAF also called on help from abroad; pilots from Poland, USA, Canada and New Zealand came to the rescue of the war-weary air fleet. The reinforcements could not change things, the Luftwaffe shot 273 British aircraft down, losses that surpassed aircraft production.

While British air bases were bombed, and the pilots suffered increasingly frayed nerves and lack of sleep, surrender was imminent. Yet, at the last minute the RAF received some unexpected news. Until now the Luftwaffe had only focussed on aircraft manufacturers and military targets. But on August 25, in response to an attack on Berlin, Hitler ordered a revenge attack against British cities.

BLITZ STRIKES ON LONDON

On 7 September, Hermann Göring was looking into the sky over Cap Gris Nez on the north coast of France. Satisfied, he peered up at the silhouettes of the largest collection of Luftwaffe aircraft ever. Göring could see 300 bombers and 600 fighters on the way across the English Channel bound for London. The attack hit the metropolis soon afterwards.

"The siren sounded, and we ventured to the local shelter to seek safety. I remember seeing the German bombers and aircraft smoke from the anti-aircraft guns [...]. I climbed up on a fire escape to get a better view and can clearly remember some popping noises. It was splinters from the

exploding grenades", London refugee Horace Davy, recalls. As 7 September drew to a close, 448 Londoners had lost their lives during the bombing.

With the attack on London, the Battle of Britain reached its final phase, the Blitz. The Germans focus was to hit major UK cities and their inhabitants. The torrent of bombs was harsh on the British civilian population who now lived in constant danger of screaming air sirens and squealing from falling bombs. Thousands perished in the explosions, many were trapped in collapsed houses or drowned in flooded underground shelters. 30,000 died during the Blitz – including 20,000 in London.

In the Capital, bombs were dropped over 57 agonising nights. Every afternoon, families stood in the queue at the entrance to the city's underground, which the authorities had opened as shelters. In mid-September, 150,000 people were sheltering on the underground platforms and rail tracks every night.

RAF ROUND UP FORCES

Safer parts of the British cities offered women, children and RAF pilots a chance for rest and recuperation; mechanics could repair the damaged planes and make them combat-ready. Radar operators and RAF pilots continued the defence with a fresh energy.

Messerschmitt's limited capacity was an even bigger problem for the Germans during the Blitz. The small fuel tank gave a fighter only 10 minutes in the air over London before he had to return to the bases in France, and therefore German bombers



British children were equipped with the so-called Mickey Mouse gas mask.

EYE WITNESS

GERALD COLE / child in London, 1940

HOUSE DISAPPEARS



"The man in charge of giving the air strike warnings ran down the street and shouted heartily: 'Down in the shelters!' My sister climbed in beside me and our mother also came to us, when I saw the room's walls break apart and fall on us [...]. I cannot remember any sounds from the night, just the sight – collapsed walls, the dust and so – I could not believe my eyes – the night sky! Our house had simply vanished."

had a limited effective defence against enemy territories. It made them easy prey for Fighter Command fighters.

Luftwaffe finally realised that air battle could destroy the RAF. After the Blitz, the biggest attack in London was on September 15. However, the Germans did not want to attack in daylight and Hitler called off the Sept 17, Operation Sea Lion and postponed any further invasion of Britain indefinitely.

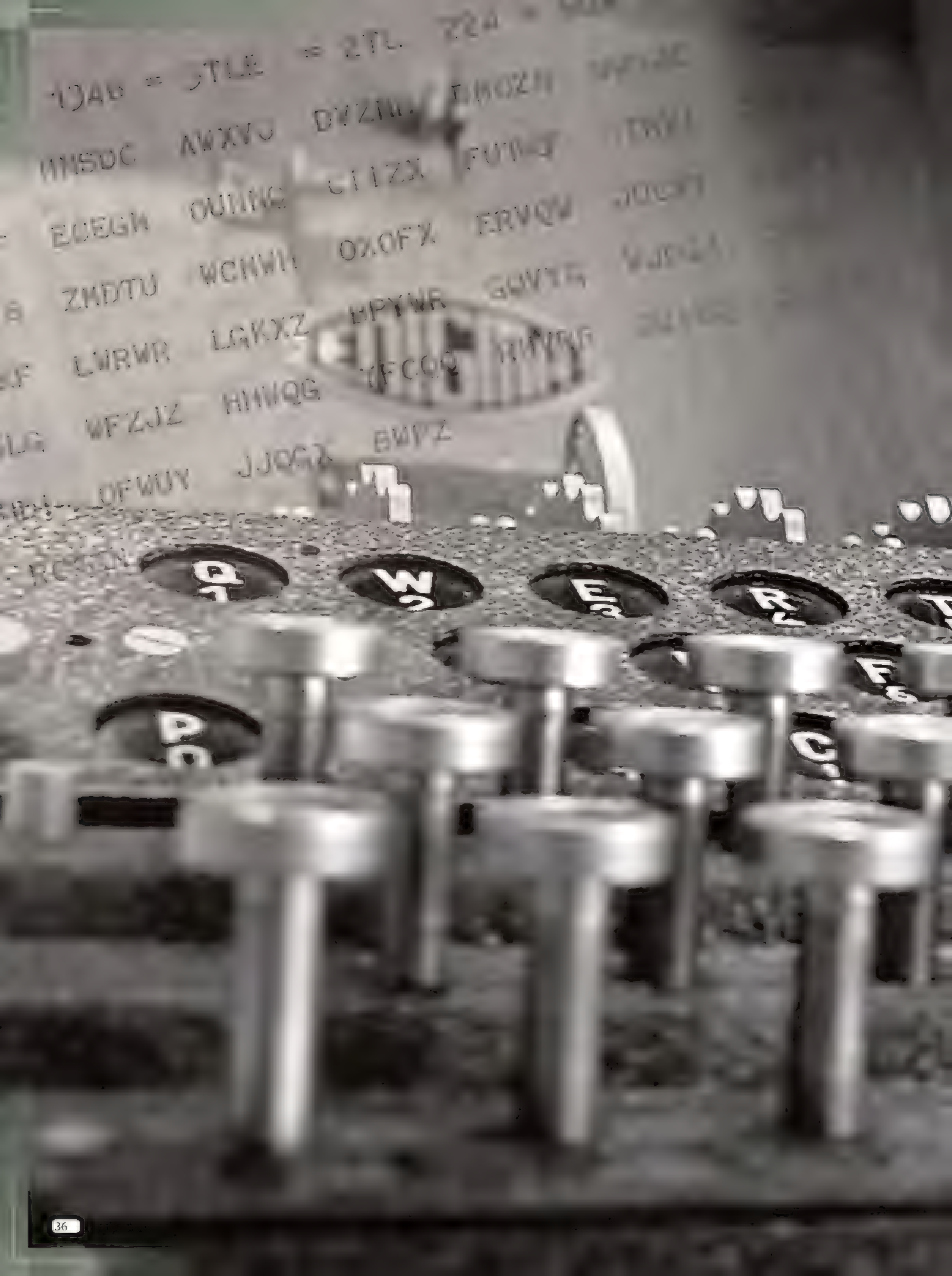
Luftwaffe continued to ravage the population of Great Britain during the nightly bombing until Spring 1941, but most of the German air force machines, that were operational, had been deployed to the Eastern Front. The Nazis had lost the Battle of Britain, which had now been added to their first decisive defeat. ■



During the Luftwaffe's nightly bombardments Londoners sought shelter in the underground, where they slept on the platforms and tracks.



Homeless children were evacuated out of town, either with their parents or foster families in the countryside. Some went all the way to Canada.



THE BATTLE FOR THE CODES

1931-1942



1931-1942

World War II was fought on land, at sea and in the air, but also at a manor in England. Here, linguistic experts worked night and day to break the German Enigma coding machine to spy on the enemy military plans. The machine was considered unbreakable until an eccentric mathematics genius and a heroic submarine officer sat down to crack the Germans' greatest secret.

1931-1942

1938 Marian Rejewski invents the decryption machine 'Bomba'.

1939 Work starts on Project Ultra at Bletchley Park.



1940 Ultra's decoding helps the British in the Battle of Britain.

1941 Kriegsmarine introduces the M4 Enigma machine.

1942 The British hijack codebooks from U-559.



In the autumn of 1940, hordes of German fighter planes ravaged Britain during the Battle of Britain. The Air Force's radios echoed coded orders from the Luftwaffe Supreme Commander, Hermann Göring. The orders were received exactly as they were broadcast because the Luftwaffe first coded all its messages through the Enigma encryption machine, which scrambled up the letters and transformed them into undecipherable text. Then a radio operator sent the encoded message over the radio to the intended receiver who used a matching Enigma to decode the text. As soon as the words took shape, the German fighter pilots took to the air, headed for England, and let their deadly payload rain down on British targets.

Enigma, closely resembled a typewriter with a plugboard attached, was one of the Germans most feared weapons. With 159 trillion settings, the Germans could plan and execute attacks on land, over water and in the air without the Allies detecting their plans. Or so they thought. For neither Göring nor anyone else in the German military knew that the British had broken the unbreakable code.

The Luftwaffe's radios were being monitored by the British so-called "Y service", which wrote down the codes and sent them by pigeons to the Bletchley Park Mansion in Buckinghamshire. There, the task of Bletchley Park employees

was to interpret the codes. The codebreakers worked

around the clock since the Germans changed their encryption each day and the code breaking would start over anew.

CHess MASTERS BROKE CODES

North of London, Bletchley Park was the 1940s headquarters of the top secret codebreaker division, the British Government Code and Cypher School. Inside the Victorian mansion and the eight newly built barracks, a group of linguists, chess masters, statisticians, mathematicians, and crossword addicts battled to break Enigma's code. Even Egyptologists had found their way to the English manor, chosen for their experience in reading the enigmatic hieroglyphs. The experts secretly worked on the code-named Project Ultra.

Every morning, the premier member of Bletchley Park arrived on his bike after a five-kilometre ride. His nails were black with dirt and his crumpled clothes were stained, but his boss knew that appearance and uniforms didn't play any role in the fight to break the code. Behind the unkempt hair and the day-old beard hid one of the greatest mathematical geniuses of the time. Alan

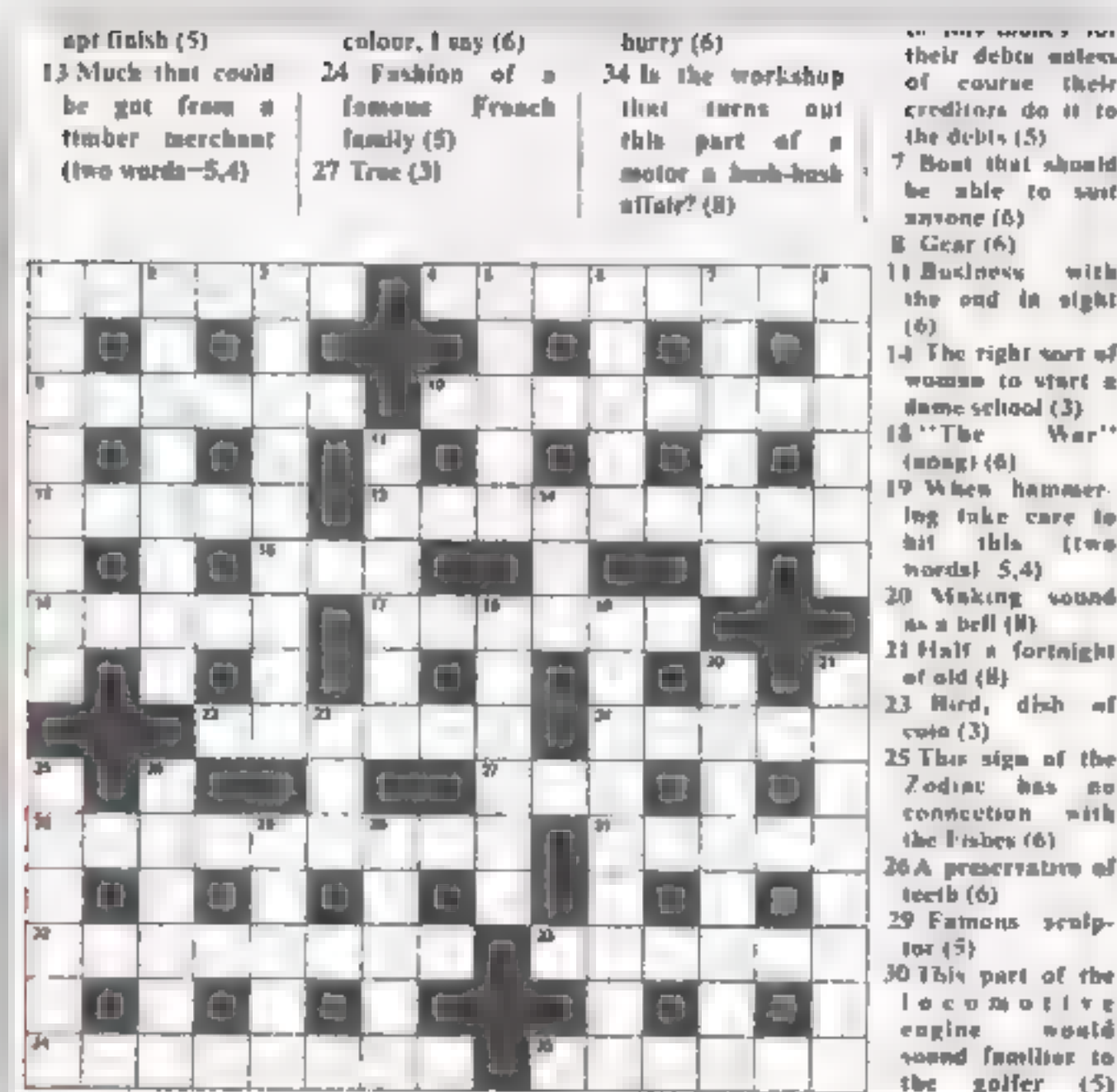
Turing had been recruited from the elite King's College at Cambridge to Bletchley Park a few days after Hitler's



attack on Poland. The mathematician previously distinguished himself with the invention of the "Universal Machine", which by using encoded tapes could divide, multiply and find square roots.

Not even Turing's own mother knew the truth about his new job at the code breaking division. In just under a year, while working on both specific code breaking and serving in the divisions think tank, Turing discovered the key of Enigma's unbreakable code system. This changed the tide of the war for Britain.

The Royal Air Force used carrier pigeons to send encrypted messages to Bletchley Park.



In 1942, to find new codebreakers Bletchley Park published a crossword in the newspaper and invited everyone who solved it in 12 minutes for an interview.

During the Battle of Britain, the codebreakers could send the times and target coordinates of German bombings to the British Intelligence Service and from there on to the Royal Air Force commander, Hugh Dowding. Dowding, being one step ahead, was able to effectively fend off the German attack while protecting his RAF assets. But Turing's solutions lived on borrowed time, the German Enigma cryptologists and British codebreakers were in a high stakes race. Germans on one side of the English Channel worked continually to complicate their encryptions, while the codebreakers at Bletchley Park worked even harder to anticipate and break each new variation.

THE UNBREAKABLE MACHINE

By the time, Bletchley Park experts began to rack their brains solving Enigma's puzzles, more than 20 years had already passed since the German electrical engineer Arthur Scherbius had invented the first machine. It was originally intended for the commercial market. However, the German military quickly saw its potential and began purchasing Enigma machines in the 1920s. By 1945, the Nazis had no fewer than 30,000 units in service.

Very simple in construction, the Enigma machine consisted of a keyboard like a typewriter, where the operator entered his message. Each time he entered a letter, an electric current travelled through the machine's plugboard and passed through three wheels called rotors. The rotors scrambled the signal and sent it back through the plugboard, causing the new coded letter to light up on a panel. When an Enigma operator pressed a key, "H" for instance, Enigma's mechanics would cause a "T" to light up on the panel. The coded text was then written down by the operator and sent to the receiver via telephone or radio. When the recipient entered the coded text into their Enigma, the original text would reappear.

The greatest strength of the Enigma machine was that a letter was never

ELECTRONICALLY CODED COMMUNICATION

In 1918 the German engineer Arthur Scherbius invented the electro-mechanical encoder Enigma, named after the Greek word for riddle. The German military further developed Enigma so that the enemy would have to try out 159 trillion combinations to find the correct position and decode their messages.

ROTORS

Enigma had three movable rotors called scramblers, each with the alphabet's 26 letters marked on it. When the operator received the daily key, he had to set the three scramblers in a certain order and then turn the scramblers so that day's three selected letters showed. Each time the operator pressed a key on the keyboard one of the scramblers alternately rotated 1/26th of a turn, ensuring, for example, that an "A" was encrypted to a different letter on the next entry.

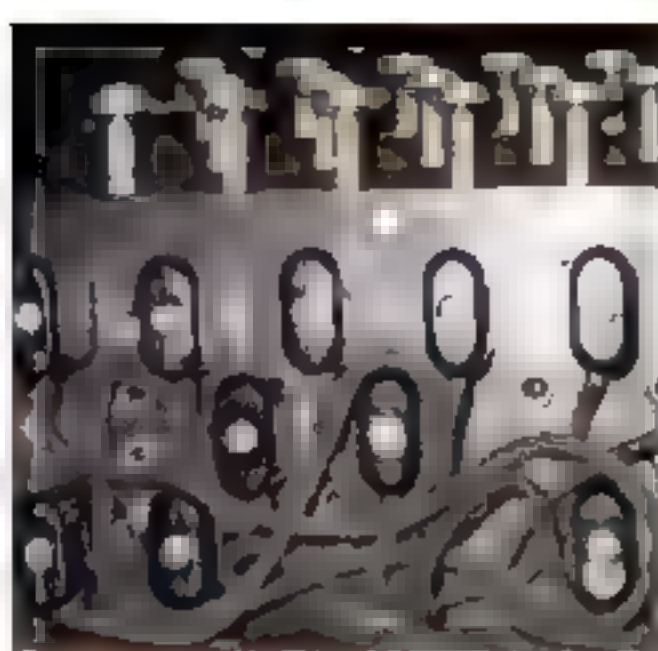


KEYBOARD

Enigma operators typed the messages on the keyboard, which had only 26 letter keys.

PLUGBOARD

When the Enigma operator received the day's key, he connected the plugboard wires so they switched six pairs of letters. For example, if "A" and "B" were connected, the electrical signal for "B" would follow the path actually calculated for "A" and vice versa.



ELECTRICITY ENCRYPTED LETTERS

The 11 kilogram Enigma worked by sending an electric current through the plugboard to the rotors of the machine. When an operator entered "H" on the keyboard, the signal from the keyboard ran through the plugboard and to the rotors and then back through the plugboard again. Each letter changed seven times inside Enigma's mechanism before the encrypted letter lit up on the panel.

PANEL

After a trip through Enigma, the encrypted letters illuminated on the panel. The coded message now passed to a radio operator who transmitted it. The most secret communication went over phone lines, but the Germans had so much confidence in Enigma that they used radio broadcasting regularly. At the other end, the recipient had to enter the encoded message into his Enigma machine, which deciphered the text.

THE DAILY KEY

Each day, the sender and receiver synchronised their Enigma. The day's setting was called the "daily key". First, to ensure the machine was set, the operators had to connect the wiring on the plugboard in the

exact same manner. Second, they had to place the scramblers in the same order and with the same letter facing up. With 26 letters, the rotors could be placed in 17,576 ways – by also changing the order: 105,456. As such the

total number of daily keys totalled more than 10 billion. The Germans upgraded the machine by increasing the number of scramblers from three to five thereby increasing number of daily keys to 159 trillion.

“Enigma had [...] 159 trillion possible settings”

encrypted the same way twice. If the sender in his message wrote the same word several times, such as “attack”, it might be encrypted the first time as “flyover” and the second as “ktadep”. This method made it almost impossible to crack Enigma’s code.

Another protection was that the Germans did not use a standard Enigma design. The Luftwaffe, the Wehrmacht and the Kriegsmarine all had their own versions. The Kriegsmarine alone had more than 10 different versions.

POLE SOLVED THE DAILY KEY

The British codebreakers already had a head start in the race for the codes at the outbreak of the war.

In November 1931, a luxurious suite at the Grand Hotel in the Belgian village of Verviers served as the setting for a remarkable meeting. Hans-Thilo Schmidt, who worked in the German High Command’s cipher division, offered the

secret of the Enigma machine’s design to a French agent. That meeting laid the foundation for a long-term collaboration, where Schmidt regularly provided the machine’s daily key – the daily initial configuration of rotors and the plugboard, which the Enigma required to match in order to code and decode the same message. The French, however, were unable to break the encryption on their own, even with Schmidt’s information. So they shared it with the Polish intelligence service, which set its sights on cracking the Enigma codes.

The young Polish mathematician Marian Rejewski built copies of the Enigma machines, but without current information about the daily initial setting, the machines only output nonsense. He needed the day’s key to make it work.

Rejewski’s great triumph was the development of a method and the means to determine the key: every morning the German radio operators sent out the day’s key consisting of three letters. The three letters were always repeated for verification purposes. However, since Enigma changed the cipher after each letter, the key message “SGT”

could produce “ERK LIJ”. Rejewski nevertheless took advantage of this minor “repetition”. He invented a machine, the so-called “Bomba”, which could calculate backward the day’s key message from the enciphered output. The Bomba was completed in 1938. It consisted of six connected Enigma machines and got its name from the ticking sound it made when checking every possible setting.

BRITISH INHERITED ENIGMA INTEL

Unfortunately for the Poles, the Germans soon added a countermeasure: Enigma was upgraded to five rotors instead of three – the number of possible daily keys increased drastically. The Polish codebreakers, with little resources, failed to make the next

decoding leap and with the threat of German invasion, they

passed on their knowledge of Enigma’s secrets to the British.

Late July 1939, Polish experts met under supreme secrecy with both French and British

counterparts in seclusion south of Warsaw. British decryption

expert Dillwyn Knox, who

became one of the leaders at Bletchley Park, had tried in vain for months to break the Enigma code and was astonished by Rejewski’s method to crack the German code. The Polish intelligence service also gave each ally an Enigma replica and the construction drawings for the Bomba.

Just a month after the meeting of the Polish, French and British, Hitler began World War II by invading Poland using battle command orders via the world’s most secure encryption. The outbreak of war jump started the work at Bletchley Park and the staff expanded from 140 to 7,000.

While German soldiers advanced through Poland and later France, the codebreakers at Bletchley Park waited in the glow of electric light for the daily key,

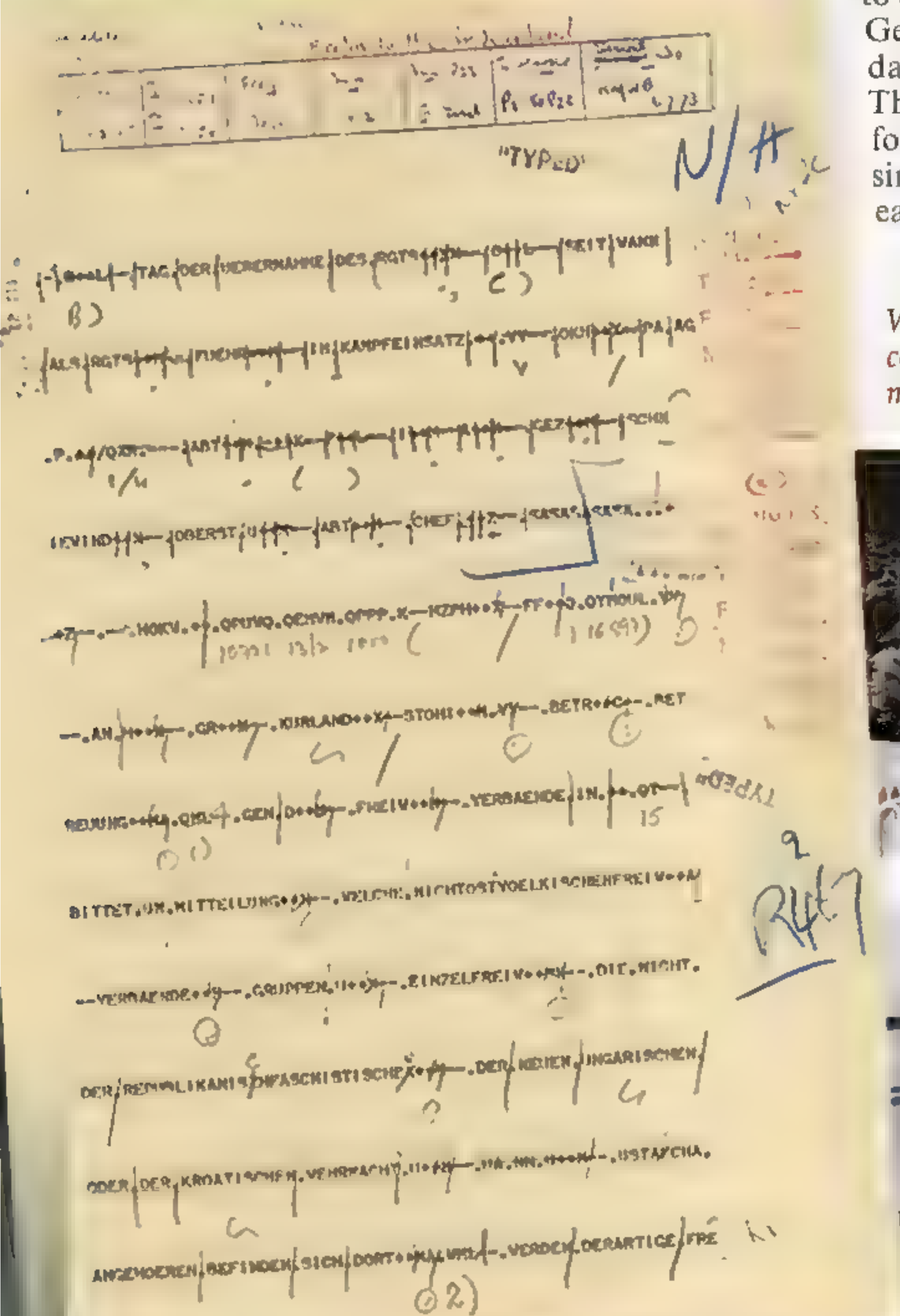
From 1941

the Luftwaffe changed Enigma’s day key every eight hours instead of every day.

When the messages were decoded, the codebreakers still needed to extract meaning from the block of letters.



Bletchley Park Mansion was built in the 19th century by financier Sir Herbert Leon, yet in 1939, it had new residents – a team of mathematicians, linguists, statisticians and chess masters.



ALAN TURING 1912-1954

THE MATHEMATICAL GENIUS

■ Mathematician Alan Turing was hand-picked after graduating from King's College, Cambridge for Project Ultra as a 27-year-old. He excelled as one of Bletchley Park's sharpest and most successful codebreakers. Although Turing worked for the military, he looked far from a typical soldier. His mother, who did not know his specific duties, hoped the service would make him cut his hair, yet Turing arrived unshaven to Bletchley Park

with stains on his clothes. While other soldiers were awarded medals after the war for their efforts, Turing's code breaking – which was vital to the war's final outcome – was not publicly acknowledged.

In 1952, the mathematician was charged with "gross indecency" for his homosexuality and was sentenced to hormone therapy. Two years later, the war hero took his own life.

Natural mathematician – The architect behind the "bombe" – Godfather of the modern computer



which was transmitted at midnight over the radio while still encrypted. This was the starting line of the following day's decryption. However, Rejewski's Bomba was far too slow to decipher German communications. The codebreakers could spend months cracking a single day's key and by then it was no longer useful.

TURING CONNECTS THE FORECAST

Alan Turing was given the task to redesign Rejewski's Bomba in order to decipher the new and improved German codes. By using the repeated daily key like Rejewski, Turing crafted his first "bombe", called Victory, on 14th March, 1940. Thanks to the Victory bombe, the British were able to decode Nazi messages within 24 hours and soon decoded the detailed plans for the attack on Denmark and Norway of 9th April.

The Germans realised the vulnerability of any repetition and two months after Victory's breakthrough, both the Luftwaffe and the Wehrmacht ceased the practice of repeating the daily key. As a result, British decoders were in total darkness over the summer of 1940.

Yet Turing did not give up. He explored the archive of coded messages, and with his

mathematical intuition and talent, recognised a pattern in the day-to-day transmissions. Turing discovered that every morning at 06.05 the Germans sent an encrypted forecast, in which the German word "*Wetter*", meaning "Weather", appeared at fixed locations. Knowing this he could link a coded segment, like "etjwpx", with the original word "*Wetter*". When Turing found a match the task was then to find the Enigma settings that encoded "etjwpx" back to "Weather". However, Enigma had 159 trillion possible combinations of settings: an impossible task for human hands.

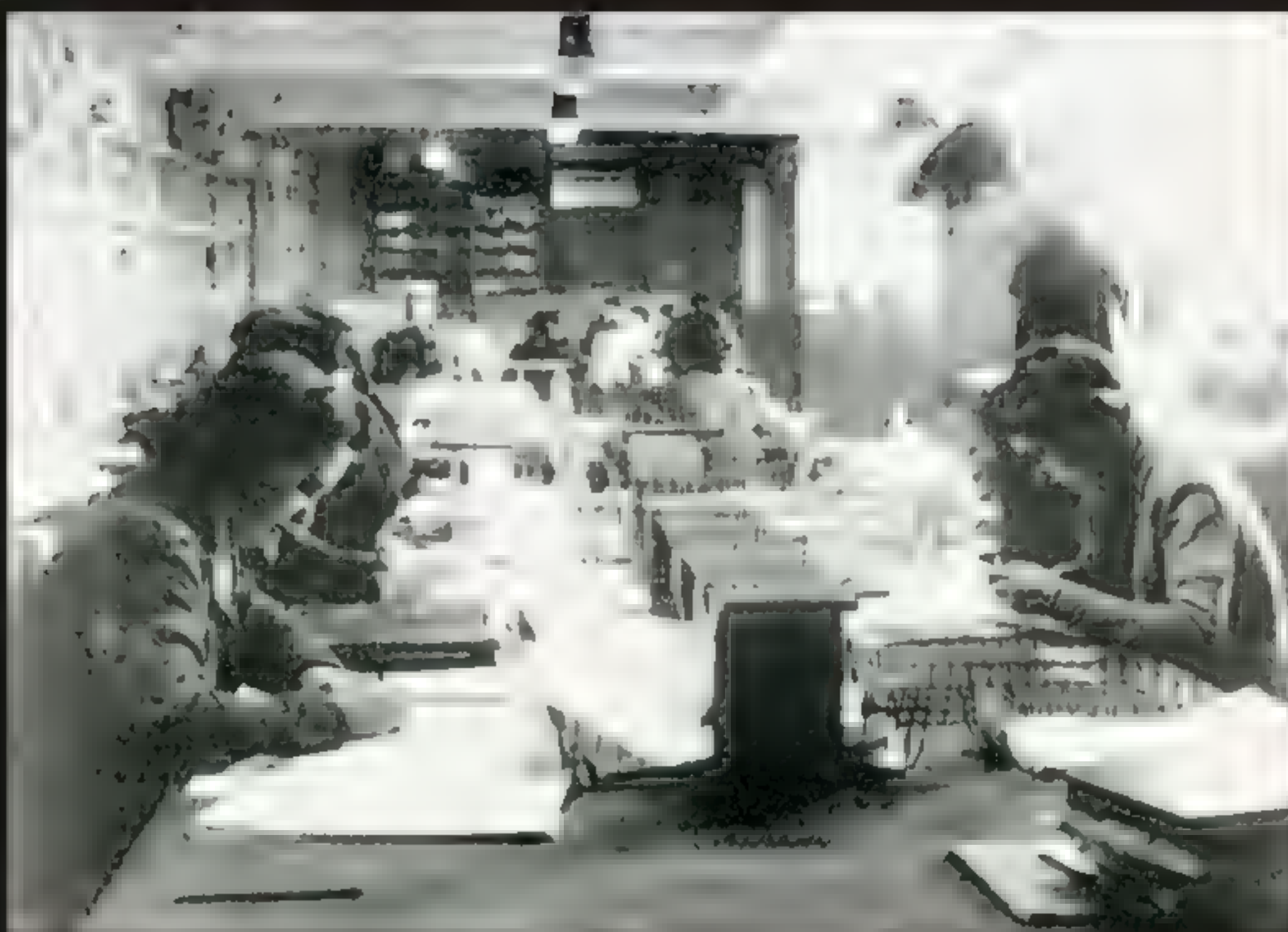
At Bletchley Park, Turing further improved on his bombe. On 8th August, 1940, at about the same time the Germans began the Battle of Britain, the prototype was ready and the codebreakers were able to again spy on the German radio communications. Faster than ever before, Turing's bombe deciphered the day's key in an hour, which turned out to be crucial during the Battle of Britain.

FLEET'S CODES WERE WATERTIGHT

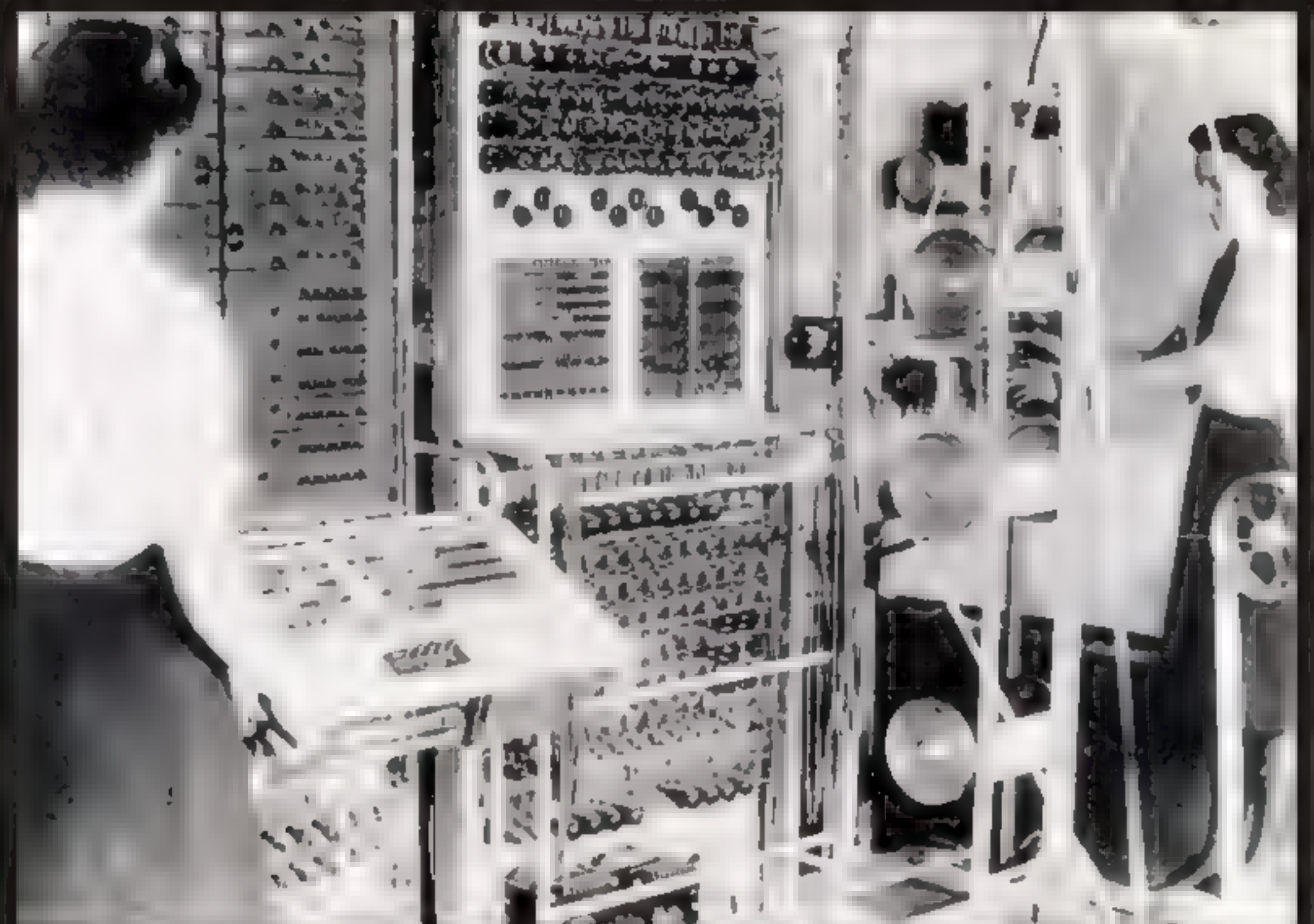
One German military branch's communication was still unbreakable: the

Kriegsmarine. The German U-boats, the so-called "grey wolves", had perfected their attack strategy and by 1940 were sinking 50 Allied ships per month thereby interrupting supply lines and sending thousands of Allied crewmen to their deaths. The shipping convoys between the United States and Britain, loaded with caches of weapons and food, were so badly crippled that it threatened defeat. The highly successful German "wolfpack" tactic, where U-boats banded together and attacked in groups, was tightly coordinated using Enigma.

The Kriegsmarine's Enigma machines worked with up to eight rotor discs instead of five, yet Turing's bombe proved capable of penetrating even this complex coding system. At times the Kriegsmarine's codes were infiltrated using a method called "gardening". In gardening, the RAF's aircraft blindly laid mines at a particular location and waited for German ships to issue a message identifying a geographical position and the word "mine", though the method was shaky and consumed both time and resources. This left only one option left open to the British: to hijack the Enigma codebooks and instruction manuals. The young Bletchley Park employee Harry



Codebreakers in a barrack at Bletchley Park break the Germans' codes, then went to the next translation in another barrack. Around 9,000 employees worked to ensure that code breaking could take place around the clock.



Alan Turing's decryption machines called "bombers" were fed codes around the clock by 2,000 women from the Women's Royal Naval Service. His bombe set a record when it cracked the Germans' daily key in just 14 minutes.

Hinsley realised that due to their long voyages, the German weather ships must have had to sail carrying daily key codebooks for at least one month. It followed that secretly capturing and looting a weather ship for its codebooks would grant the codebreakers secure access to the Kriegsmarine's communications. In the spring of 1941 the hunt began.

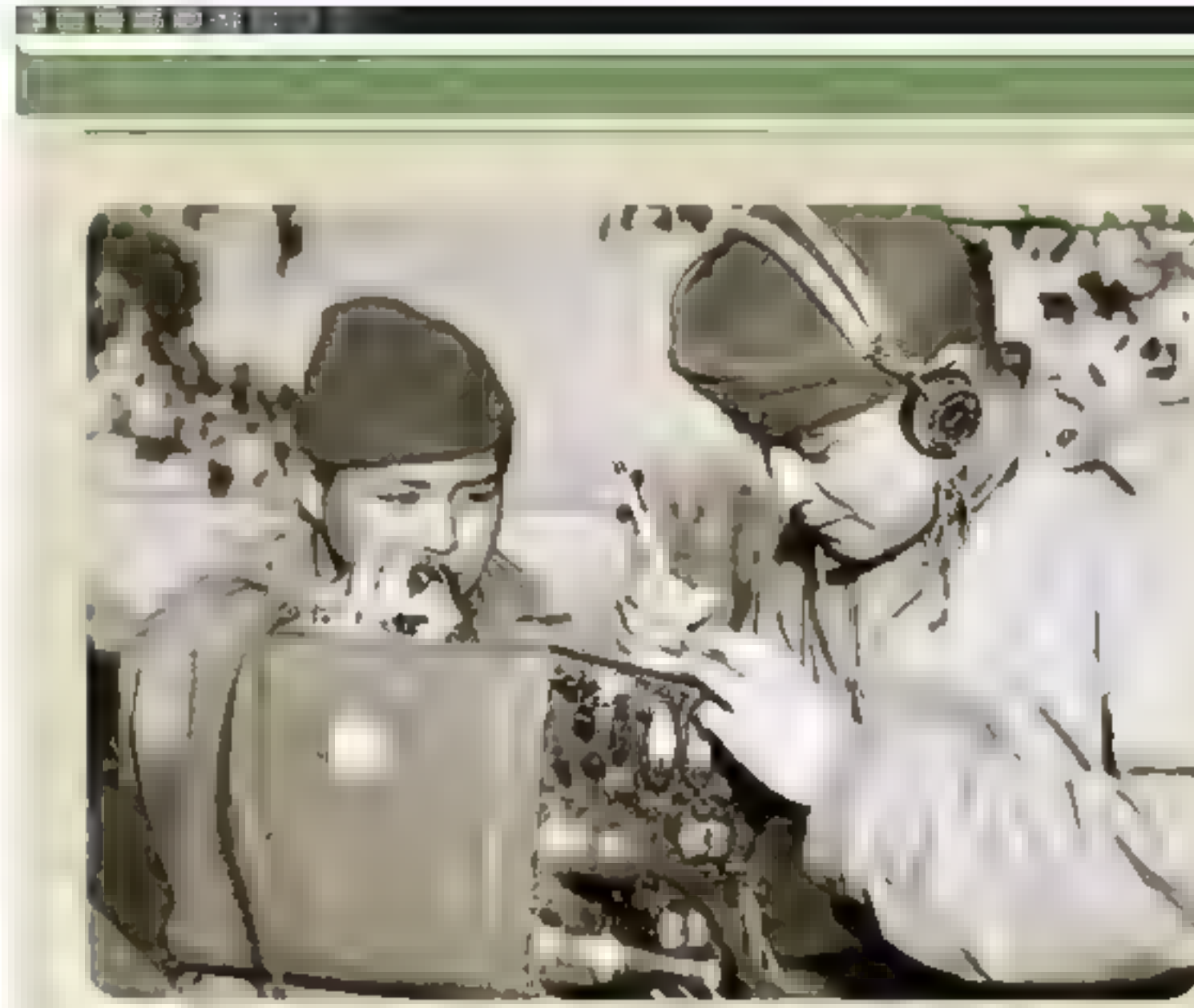
BRITISH STEAL FROM THE WOLVES
On 7th May, 1941, a watchman aboard the British destroyer *HMS Somali* spotted smoke on the horizon. While on the hunt for the German weather ship *Munich*, together with three other of the Royal Navy's fastest destroyers, *Somali* closed in on its prey. The superior warships easily boarded the German weather ship.

Although the German captain managed to throw the ship's Enigma machine overboard to save them being discovered, the British found codebooks with German daily keys for May and June 1941.

Just a few days later the British captured a complete Enigma machine and a codebook from the submarine *U-110* allowing them to spy on the Germans until July. The captured intelligence turned the tide in the fight against the dreaded U-boats in the Battle of the Atlantic.

But the Kriegsmarine once again outdid Bletchley Park by outfitting its vessels with a new and even more complicated Enigma: the infamous *Triton M4*. The machine, known to the British as *Shark*, was deployed before a massive submarine offensive which aimed to destroy the Allied supply lines once and for all and force Britain to its knees. *Shark* cast a veil of darkness over the codebreakers at Bletchley Park which lasted 10 months.

But at dawn on 30th October, 1942, *U-559* appeared on the radar of a Sunderland flying boat in the southeastern Mediterranean. A group of British destroyers set out to hunt the submarine. Following the British aircraft crew reported spotting a periscope and the contours of a



submarine, the warship *HMS Petard* began their depth charge attack. The explosions sent giant geysers of sea water into the air, yet when the sea calmed a disappointed crew found their weapons had not hit the prey. The warship pursued the U-boat and launched massive clusters of explosives toward the depths but nothing seemed to affect the submarine. *Petard's* captain was able to determine that *U-559* had dived

deeper than the charges' 150 metre maximum depth and ordered the crew to stuff soap into the depth charges holes so that they sank deeper before they exploded.

Nevertheless, the destroyers' attack continued well into the night before a depth charge finally struck *U-559*. Shortly

after, *Petard's* crew glimpsed the metal behemoth emerging from the surface in a white mass of churning waves.

PETARD'S CREW STAGES A COUP

The *U-559* submariners had already obeyed the command to abandon ship when their hopes of seeing the U-boat sink behind them, carrying along with it Enigma's secrets, were dashed. *Petard's* crew had started to launch a whaler to board the U-boat when First Lieutenant Anthony Fasson made a fateful decision. He threw himself into the pitch black sea followed by Able Seaman Colin Grazier and the

16-year-old canteen assistant, Thomas Brown and swam towards the crippled sub. Together they managed to reach the submarine

in time and board her just as water rushed through the hatches.

"As I went down through the conning tower compartment I felt it [water] pouring down my back [Fasson or Grazier] gave me some books, I picked them up, and they were passed on to the whaler.... I shouted 'you had better come up' twice, and they had just started when the submarine started to sink very quickly. I managed to jump off and was picked up by the whaler." Thomas Brown said later.

His two companions never reached the surface, but died in the belly of *U-559* and therefore never came to experience the crucial importance of their hijacking.

With the plundered materials, the British would again have the key to the Kriegsmarine's communication. When the news reached the codebreakers at Bletchley Park, an excited employee broke all secrecy directives, ran to the pub and shouted, "We have the submarines again!"

At the heart of The Battle of the Atlantic was a motley crew of chess masters, mathematicians and Egyptologists whose work succeeded in turning the tide of the war into the Allies' favour so that the supply lines across the Atlantic could continue uninterrupted.

It was the turning point that made the difference and recognised as such. Winston Churchill later said that "It was thanks to Ultra that we won the war."

However Ultra's successes did not make headlines or gain many honours during the war because the codebreakers worked under the utmost secrecy to hide from the Germans their robbery of the Enigma system. Churchill described the team as "the geese that laid the golden eggs but never cackled". ■

MEANWHILE IN THE USA

NATIVE AMERICANS REPLACE ENCRYPTION MACHINES

The Americans and Japanese also used encryption machines. But in the Pacific, where small islands comprised the battlefield, soldiers had to respond in a split second and any kind of communication by code was too slow. The American Phillip Johnston got the idea of recruiting Navajo translators who could speak freely over radio in their tribal language without the Japanese soldiers understanding.




Destroyer *HMS Petard* pursued *U-559* for 10 hours before disabling and boarding the German submarine.

General Heinz Guderian commanded the invasion of France from his mobile Enigma station in 1940.








WAR UNDER THE SEA

1939-1944



At the outbreak of the war, German Admiral Karl Dönitz decides to starve England into surrender. He orders the U-boat fleet upgraded and sends its “wolves” into the dark Atlantic in search of Allied convoys. The stench of old sweat and diesel oil quickly becomes routine for the German sailors, yet they never adjusted to the haunting sound of the enemy sonar. What comes next is invariably the destroyers’ depth charges and the risk of dying trapped in a sinking iron coffin.

1939-43



1939 British passenger ship *Athenia* is the first victim of the U-boat war.

1940 The Germans have access to the Atlantic after capturing France.

1941 Destroyer *Petard* intercepts important code info from a German sub.

1942 The Kriegsmarine sinks 711,000 tonnes of goods in one month.

1943 The Allies sink 40 German submarines in May.



U-boat Captain Fritz-Julius Lemp had been certain. Through the periscope of his submarine, while cutting through the waters northwest of Ireland on 3rd September, 1939, he tracked a British ship, which, by Lemp's assessment, was an armed merchant vessel or a troop ship and thus a legitimate target. Lemp ordered his crew to battle stations and to make two torpedoes ready. At 19.40 the U-boat captain fired. But the crew realised something was wrong as soon as the first of the seven-metre-long and two-tonne-heavy torpedoes hit.

Radio Operator Georg Högel monitored the emergency frequency and listened to the British ship's emergency signal.

When the distress call went out, the radio operator immediately knew that it could not be a troop ship, but that there would be passengers on board. The ship was called *Athenia*. Captain Lemp was shocked by the call and leafed through the ship's register until his quivering finger stopped at the passenger ship *Athenia*.

Aboard the sinking *Athenia* passengers struggled to find a way out of the ship's berths. Eyewitnesses recalled that screams sounded from the cabins and the upper deck overflowed with corpses. The German submarine *U-30*, made no attempt to rescue

the passengers from *Athenia*, and the attack was a clear breach of the so-called "U-boat protocol" that Germany had signed in 1936. The Germans had fired on a civilian passenger ship without verification. Within 24 hours, the news had gone around the world – it incited rage and drew massive headlines in Britain and US. Despite this the Nazi High Command denied involvement. Propaganda Minister Joseph Goebbels immediately issued a statement claiming that *Athenia* had been torpedoed by a British vessel.



The Honour Roll Clasp was one of Kriegsmarine's awards.

SHOTS LEAD TO WAR

Lemp's misjudgment in the shooting of *Athenia*, which had sailed toward Canada with 1,103 passengers, was not simply an accident that cost 118 lives. The event triggered the start of five brutal years of ocean warfare, the Battle of the Atlantic, which became one of the longest and most important campaigns during World War II.

From September 1939 until 1944, the German Kriegsmarine fleet went on raids to sink Allied ships across the Atlantic to cut off US supplies from reaching Britain. Britain couldn't feed its population and needed to import 59 million tonnes of food and raw materials every year. All of its oil had to be imported from abroad. By attacking the merchant ships and oil tankers, the Germans hoped to force British politicians into a ceasefire on the Nazis' terms.

The commander of the submarine fleet, Admiral Dönitz, determined that the fleet had to sink merchant ships equivalent to 711,000 gross registered tonnes – just over 2 million cubic metres of goods – every month to force the British to kneel. The mission so far had been a success. By 1941, British imports fell to half of what they had been before the war, and in 1942-43 the Kriegsmarine was so well-equipped and efficient that they reached their quota. In total, German subs sunk 2,714 British merchant ships in the Atlantic, while more than 30,000 British merchant mariners and a total of 75,000 Allied seafarers died.

But back in September 1939, when the *U-30* attacked *Athenia*, the German fleet still resembled a collection of misfit vessels. The Kriegsmarine was weakened by the



Space on board was so precious that crew had to share beds – even making the torpedo room into extra bunks.

Treaty of Versailles and Germany launched the Battle of the Atlantic with only 57 armed U-boats – far from the 300 Dönitz deemed necessary. More than half of the German vessels were outdated short-haul boats that could only reach targets in the North Sea before requiring resupply. Dönitz lobbied to modernise the fleet with the new type VII U-boat, which could sail up to 15,000 km and thus operate in the Atlantic, where the battle of the U-boat would take place. To the admiral's satisfaction, Hitler soon gave a green light to produce a massive U-boat force, of which the modern types VIIB and VIIC were the majority.

At this time, Dönitz had devised the so-called "wolfpack" tactic, a special strategy to attack heavily protected Allied convoys. For the Germans, the problem was that even if a single U-boat was able to sink two or three merchant ships, the convoy size alone would ensure that most of the supplies still arrived in Britain. So Dönitz ordered the German U-boats, named "The Grey Wolves", to coordinate their attacks. When a wolf detected a convoy, it called for multiple reinforcement U-boats via radio, which then all rendezvoused for the group's attack.

THE WOLVES TOOK A HIT

Only two weeks after sinking *Athenia*, the crew of Lemp's submarine, *U-30* experienced how violent an attack at sea could be. The British aircraft carrier *HMS Ark Royal* tracked the U-boat and sent three aircraft and three destroyers against the *U-30*. Soon, intense depth charge bombardment from both aircraft and warships began. The bombs ruptured two torpedo tubes, and the cold sea poured into the engine room. The *U-30* dangerously sank to 142 metres – deeper than any U-boat had ever been. Armed only with buckets, however, the crew managed to bail

EYEWITNESS

GERHARD BUSKE/German naval office


THE ALLIES ATTACK U-223 IN THE MEDITERRANEAN



“ We were attacked with depth bombs for 25 hours by at least four destroyers. The U-boat dived to between 200 and 230 metres, very deep, and the hull cracked and blasted. The sound through the water seemed deafening – really scary. It was hard to be attacked so long. The air was thick and it was hard to breathe. We thought that the hull would burst, and knew that it would mean the end for us. ”



“ In total, German subs sunk
2,714 British merchant ships in
the Atlantic ”



From the control room and
command tower, submariners
tracked British merchant ships.

BATTLE OF THE ATLANTIC

NAZIS ATTACK, 1939-1940



● Area of sunken merchant ships — Sunken German U-boats

■ The Germans begin the Battle of the Atlantic with only 57 submarines, however, many are short-ranged, and to attack British supply lines they must cross the English Channel or the North Sea – still the Germans sink 220 ships, yet lose 15 submarines.

U-BOAT BATTLES IN THE ATLANTIC, 1940-1941



● Area of sunken merchant ships — Sunken German U-boats

■ From bases in the newly conquered Norway and occupied France the Germans use new mid-range submarines to attack convoy routes in the Atlantic. In just two months, the Kriegsmarine sink 1.6 million gross tonnes of British goods. Dönitz introduces the so-called "wolfpack" strategy in October 1940.

the water into the control room, and from there the submarine's pumps could return it to the Atlantic.

After six hours of being hunted and combating the leaking water, Captain Lemp finally escaped the pursuers and led his vessel home to Germany. On 27th September, 1939, they arrived at the naval base in Wilhelmshaven. The British attack had caused great damage to the *U-30* – one diesel engine had collapsed, and the other could barely

propel the U-boat. Despite the hardships, all of the crew survived and one sailor had been injured.

The crew from *U-30* had been lucky as the risk of death onboard a submarine was staggering. Of the approximately 40,000 man crew who manned the German U-boats between 1939 and 1945, only one in four survived.

When Fritz-Julius Lemp's crew moored at the dock in Wilhelmshaven, they were glad to leave the tight confines and harsh conditions on board the *U-30*. Cramped life onboard a German U-boat during deployment was arduous.

44 SEAMEN SHARED ONE TOILET

On the week-long trips, the *U-30*'s 44 man crew had to live and work in a tight and cramped 42-metre-long space that was only

three metres wide. The U-boat was filled with fuel and torpedoes and jammed with food, torpedoes and equipment that the crew had to manoeuvre around.

Large sausages and smoked meats hung from the ceiling and every available hook was used to store potatoes, cheese, canned food, coffee and milk.

In the bunks slept loaves of bread. Even one of the two toilets on the U-boat was used as a storage room so all 44 men had to share one toilet. The stench on board was a challenge for U-boat crews. The sailor Volkmar König, who served on a type VIIB U-boat, remembers:

"The most penetrating was the smell of diesel oil, but one could also smell the food and the men".

That the hard-pressed sailors stank was inevitable. With the U-boat's scant stock of

GREAT ADMIRAL KARL DÖNITZ 1891-1980

U-BOAT COMMANDER

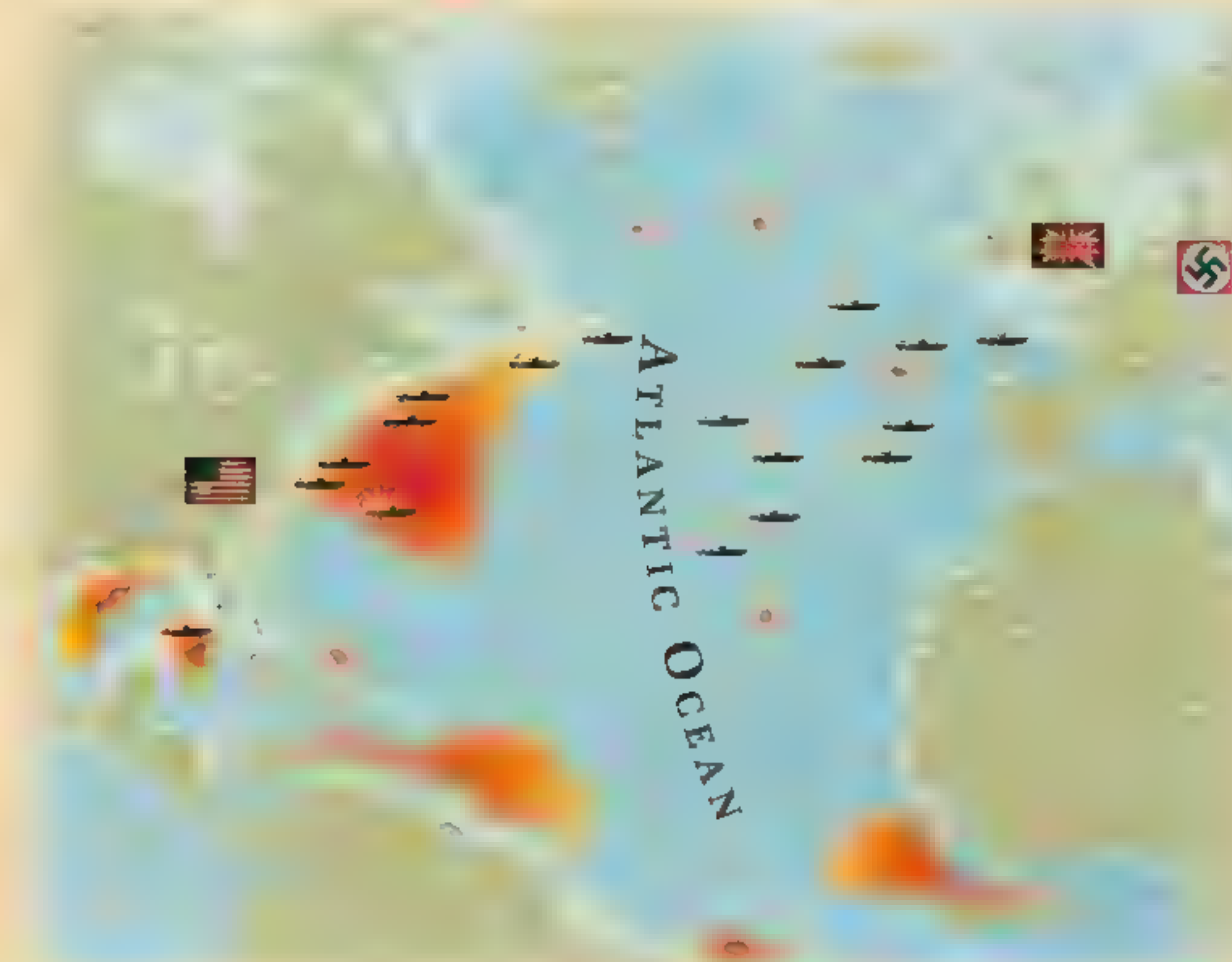
■ The Commander of submarines during World War II was already serving aboard German U-boats during World War I. When war broke out in 1939, he strongly advocated the war would be won by cutting off the British supply line across the Atlantic. He estimated the task would require a fleet of 300 U-boats. Admiral Karl Dönitz advanced in 1943 to Supreme Commander of the Kriegsmarine and was given the rank of great

admiral. However, his career took an unusual turn when Hitler committed suicide on 30th April, 1945. The Führer had named him his successor in his will and Dönitz formally served as President of the German Reich until the Nazis' surrender on 8th May. Two weeks later, the president was arrested by the Allies who imprisoned him for 10 years for war crimes during the Nuremberg trials.

Supreme Commander – Advanced to head of the entire Kriegsmarine – Hitler's political heir

WAR MOVES TO THE USA, 1942-1943

THE ALLIES ON THE OFFENSIVE, AUTUMN 1943



• Area of sunken merchant ships — Sunken German U-boats

■ After the Americans joined the fight in 1941 and began aiding in the protection of convoys using their naval vessels and aircraft, the Germans adapt a new strategy. With the latest long-distance subs, Germany moves to strike merchant ships near America's shores where they unprotected.



• Area of sunken merchant ships — Sunken German U-boats

■ The summer of 1943 becomes disastrous for the Germans, who have abandoned attacks against the US and now reside in the North Atlantic. With intensive surveillance from planes and radars and attacks with depth bombs, the Allies sink up to 40 U-boats in a month.

fresh water, the seamen could rarely bathe, and each brought only one set of clothes. Shaving was not practical and so most U-boat sailors wore large beards that grew stiff from salt water and diesel fuel.

The German U-boats had neither well-functioning heat nor ventilation systems so the enclosed air was mostly too cold or too hot. Yet it was always damp, since seawater crashed in through the hatch of the command tower.

THE BRIDGE WAS THE ONLY SMOKING ROOM

Duty as watchman afforded the only opportunity for fresh air. When the U-boat sailed on the surface, the vessel was vulnerable to air strikes, so four men kept constant watch on the command tower bridge. In fair weather, the bridge watch was a sought after diversion from the overcrowded, smelly conditions below as well as the only chance to smoke. Though in high seas and biting wind, watch duty was difficult and dangerous. Secured only by a safety line, the lookouts had to scour the sea for threats while icy cold, the metre-high waves crashed over them. Undaunted, the sailors of the German subs held their heads high, for they were proud to belong to a special cadre of elite soldiers, exalted by Nazi leadership and celebrated continually by the propaganda machine.

In April 1941, to tell the story of the brave U-boat sailors, war correspondent Helmut Ecke went aboard the *U-110*. Here

Captain Fritz-Julius Lemp had taken command of the U-boat with a crew of familiar faces from the *U-30*.

However, the glamour of the sailors' life quickly faded for Ecke, who soon experienced the gritty reality of the U-boat service for himself. 300 miles west of Ireland, he witnessed an attack

on the vessel *Henri Mory* that had sailed all the way from the British colony of Sierra Leone.

"I saw the torpedo explode in a 200-metre-high tongue of orange flames, and in

the midst of these flames, swirled human bodies and debris from the ship around before they crashed into the Atlantic again," he said. The U-boat picked up one of the survivors, and Ecke gave the barefoot and trembling man a cigarette. But he was quickly sent down into the lifeboat to the other shipwrecked. "They were still alive, but how they survived that night and beyond, I have no idea," recalled Ecke.

SONAR TRACKS THE U-110

U-110 torpedoed the *Henri Mory* in a hotbed of German U-boat activity.

784 of the 1,170 German U-boats serving during the war were eventually sunk.



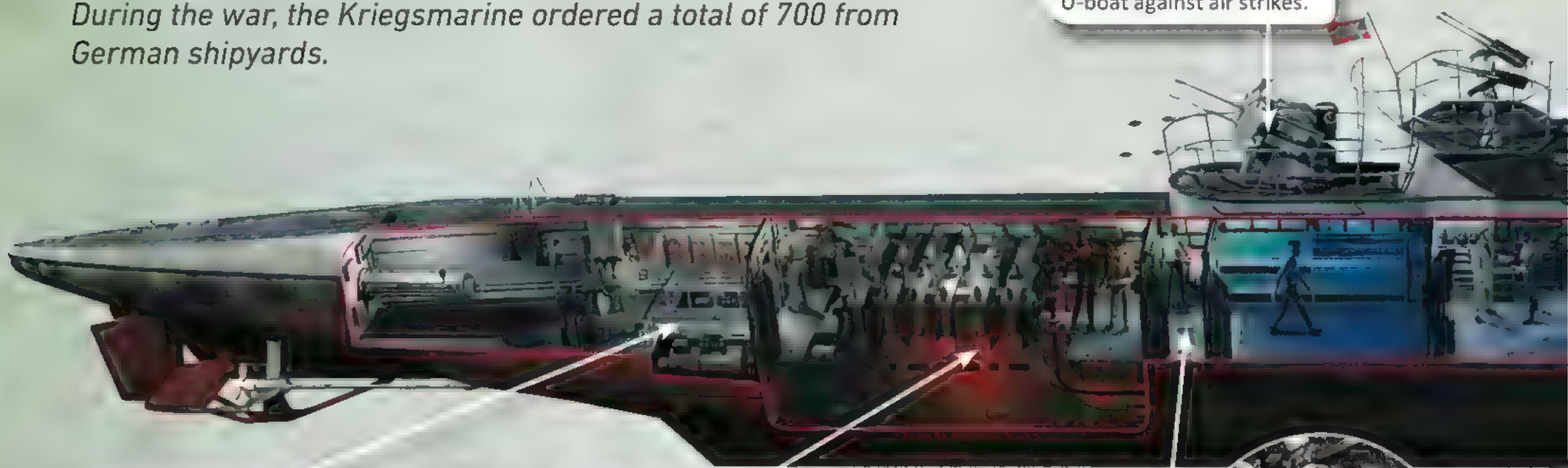
Only every fourth German submariner returned home.

LONG-DISTANCE U-BOATS WILL

At the outbreak of war, Hitler fiercely upgraded the German U-boat fleet. It would consist of vessels that, unlike the outdated short-range subs, could handle long journeys in the Atlantic. The backbone was made up of the Type VII U-boats. During the war, the Kriegsmarine ordered a total of 700 from German shipyards.

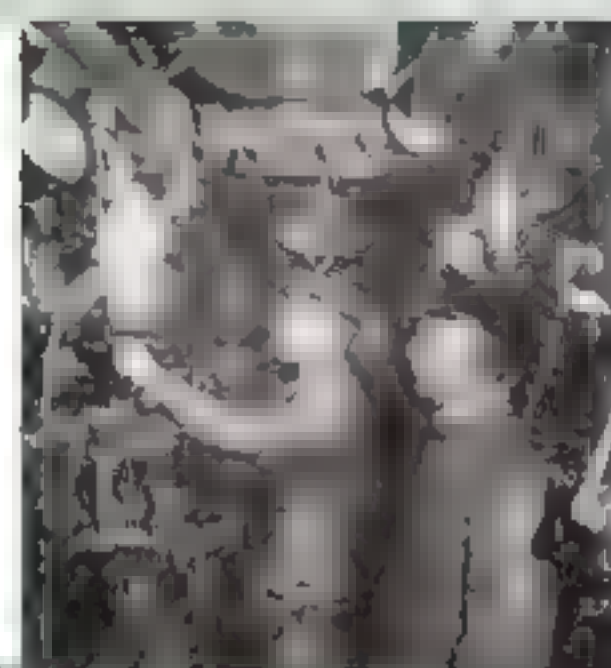
Anti-aircraft gun

On the deck was a quad barrel 20-mm flak gun that could defend the U-boat against air strikes.



Generator Room

For surface sailing, two generators could be linked with the diesel engine to charge the sub's batteries. Generators and batteries powered the vessel underwater.



The Engine Room

Here, two 1,160-horsepower diesel engines operated. It also contained an air compressor and a distilling unit which converted salt water into fresh water.

The Galley

The crew crowded in narrow U-boat galley, where they ate their meals. The menu consisted of canned food, meat, bread, milk, coffee and fruit.



the Western Approaches, a rectangular area in the Atlantic just west of Ireland and the British Isles. This became the prime "hunting area" for U-boats because almost all merchant ships had to travel this route between Britain and America.

The British protected vital supplies by sailing in large convoys, defended by sonar and depth charges. The sonar system, which was invented at the end of World War I could locate enemy U-boats by emitting sound waves through the water. However, German U-boats were built to attack with the deck gun or torpedoes from the surface where the sonar could not track them.

A few weeks after the shooting of *Henri Mory*, correspondent Ecke, Captain Lemp and his crew aboard *U-110* experienced British retaliation at sea.

In May 1941, Lemp received a report of a convoy in the middle of the Atlantic. He

had the choice between a night attack from the surface under the cover of darkness and an underwater attack during the day, where the U-boat could destroy its prey unseen. It was an easy decision and the captain chose the latter.

Since the *U-110* only had a single German U-boat nearby, Lemp could not call for a full wolfpack strike. The U-boat fired its torpedoes – and two struck targets. Georg Högel, who was on duty in the radio room, recalled:

"I followed the sound of the torpedoes in the hydrophone until they hit their targets. We turned around to shoot from the rear, but now I realised that we were hunted with sonar. I said to my partner: 'Fritz... they are echoing from us'. Another crew member could hear the fateful sound of 'ping-ping-ping' – a sign that the British sonar had hit the U-boat's hull.

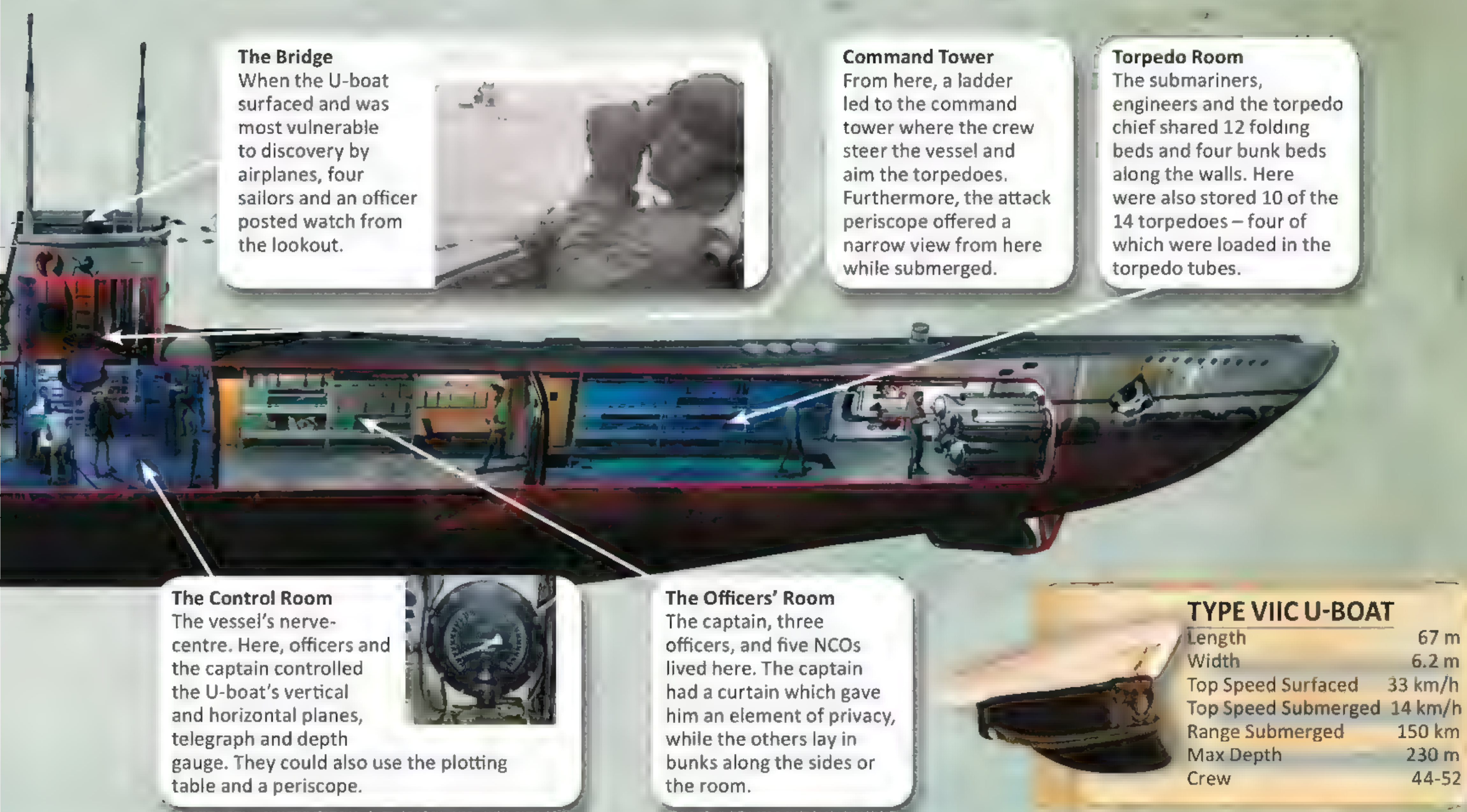
"The commander ordered to go deep. We could hear the destroyer's screws. The ship had given gas, and as it passed over us, it threw its deep bombs," he recalled. "The *U-110* dived deep to avoid the charges, and the crew could hear them exploding above the vessel.

"The U-boat zigzagged while alternately rising and diving to escape the sonar.

"But again and again we heard the destroyer who was hunting us, stopping, and bearing, and then rushing to full speed.

The seamen's life jackets could be inflated by mouth or with compressed air cartridges.

WIN THE BATTLE OF THE ATLANTIC



“Again and again we heard the destroyer who was hunting us, stopping, and bearing, and then rushing”

Then we knew that there would be more depth bombs against us.”

BRITS HIJACK INTELLIGENCE CODES

U-110 did not avoid the British depth charges. An explosion destroyed the depth gauge and some valves and soon they were taking on water and leaking diesel fuel. The electric motors driving the U-boat failed.

Lemp recognised defeat and decided to raise *U-110* to the surface. There, five warships were ready to greet the crew when they opened the hatch. Three ships fired their guns at the U-boat, and two sailed as if to ram the sub.

The crew from the U-boat jumped into the water to avoid dying in a sinking coffin, but Captain Lemp was responsible for the

U-110 not falling into the hands of the Allies, as well as the Enigma encryption machine and codebooks onboard. It would enable them to decode Kriegsmarine's communication and identify the Germans' plans. Lemp filled the ballast tanks to sink the sub and then abandoned ship. Yet when the *U-110* did not sink, as captain of the precious vessel, Lemp swam back to the U-boat to sink it.

It was the last time the crew saw their captain alive.

Lemp's last voyage was bad news for the Nazi regime. While radio operator Georg Högel was treading water near the U-boat, he found Ecke.

“I could hear somebody near me sniffing and babbling. He had obviously swallowed

a lot of water. It was the propaganda guy who should have written a beautiful article about our patrol.”

16 of the crew drowned or froze with their captain, who had been responsible for starting the battle of the Atlantic two years earlier. The remaining 32 survivors were taken prisoner and had to spend the rest of the war as captives, firstly in Britain and later in Canada.

The U-boat war was far from over with the *U-110*'s fate decided. German U-boat victories against Atlantic traffic peaked the following year, when they succeeded in sinking merchant ships with approximately 650,000 gross registered tonnes – more than 1.8 million cubic metres of goods – each and every month.

Yet with the attack on Lemp's U-boat, the Allies had secured invaluable intelligence which would enable them to spy on the Kriegsmarine's plans for a significant period of time.

There is no doubt that 1943 was a turning point for the Germans as their fortune changed and the Allies took control over the Atlantic. The following year, a total of 241 German U-boats were sunk: the highest figure during the war. And when the Kriegsmarine also lost its Atlantic bases in France on D-Day and the invasion of Normandy in June 1944, the U-boat war in the Atlantic was finally decided. ■



CARTE D'IDENTITE

Nom **CARL**
Prénoms **André**
Profession **ouvrier**
Nationalité **français**
N° le **15**
Commune **Paris**

SIGNALEMENT

Taille **1,70**
Poids **65**
Couleur des cheveux **bruns**
Couleur des yeux **bleus**
Couleur de la peau **brun**
Particularités **aucune**

Le Maire ou le Commissaire,

Émis sous le N° **15**

ÉCHANGEMENTS SUCCESSIFS

THE FRENCH RESISTANCE

1940-1945

A few days after the German invasion, the French begin the resistance. With the help of British agents, the freedom fighters build one of Europe's most effective resistance armies. And when D-Day arrived, La Résistance closely coordinated a masterful plan to destroy Normandy's telephone lines, railways and roads – effectively preventing German reinforcements from arriving.



1940-44

1940 German troops invade France and occupy Paris. The country is split in two.



1943 The Gestapo arrests Moulin, who soon disappears without a trace.

1944 French saboteurs play a vital role during D-Day.

1944 French forces free Paris after four years of occupation.

1940

1943 1944

On the morning of 17th June, 1940 two German soldiers entered the Prefect Jean Moulin's office just south of Paris. The 40-year-old official sat quietly until the soldiers threw a piece of paper on the desk in front of him. The declaration claimed that seven women and children had been mutilated and murdered in a village in his specific district of Eure-et-Loir and that the culprits, a group of French-African soldiers, had already been found. The declaration just needed Moulin's signature of approval.

The prefect knew that he would have been quickly notified had a massacre taken place. And so Moulin refused to sign the declaration blaming the French soldiers. Furious, the Germans dragged the prefect out to the village where the slain bodies laid. Yet, Moulin could easily see they had been victims of a German air bombing. Shaken, but resolute, Moulin refused to sign. The Germans beat and imprisoned him. There, on the floor lay a piece of glass.

and the proud French prefect made a calculated decision. He would rather die than send innocent compatriots to their death. Then he cut a deep slit in his neck. The next day the guards found Moulin in a pool of blood. His carotid artery was damaged, but intact. Moulin was alive and his will to resist the occupation did not falter. On the contrary, it was fortified – a fact that the German's would soon feel the next year.

Following imprisonment, Moulin became a pioneer in and later the head of the French resistance movement – he was the man behind the wave of sabotage, espionage, and propaganda that washed all across France following German occupation.

FRANCE WAS SHAKEN

The Nazis' attacks of May 1940 had left France in a state of shock. The populous and highly industrialised country was vital to the Third Reich's further plans. The Germans had to use – by Nazi standards – a softer touch. So, in the beginning, the Nazis were on their best behaviour: German soldiers supported the elderly on the streets and smiled at young girls, but deliberately avoided flirting while generally being polite. But as Moulin had noticed, their brutality simmered under the calm surface. The French only needed to look at Poland to understand how brutal the German invaders might be if they resisted.

On the day that Warsaw surrendered, on the 27th

September, 1939, Major Henryk Dobrzanski assembled the first major resistance group in Europe. His 50-man unit, the "Separated Unit of the Polish Army", fought a guerrilla war against the German occupying forces around the Polish city of Kielce and in March 1940

The head of the French resistance movement, Jean Moulin, wore a scarf concealing scars from his time in the Gestapo's custody.



18th June, 1940, de Gaulle made his first speech to his people from London. The French general became the unifying symbol of the Resistance.

recorded a major triumph. Near the village of Hucisko, Dobrzanski and his Polish guerrillas defeated a German battalion.

A few days later, the Poles decimated another German unit. The Germans responded with ferocity to the two defeats and sending in a 5,000-man hunting party to the area to wipe out the Dobrzanski partisans.

Major Henryk Dobrzanski died on 30th April, 1940 in an ambush. The Germans desecrated his body and put it on public view in the local villages across the Eastern Front to instil fear among the people.

60,000

French residents were killed by the Germans during the occupation.

RESISTANCE THROUGH GRAFFITI

In Western Europe, where Germany abstained from the worst brutalities, resistance started small, with distribution of illegal newspapers and anti-Nazi graffiti.

Jean Moulin, who surprisingly was, allowed to return to his position, led his very own resistance. On his return to office, he banned district mayors from putting up any German regulations in the office. True to form, Moulin simply refused to follow any future Nazi commands to cover up German hostilities.

Small resistance groups gradually emerged, all from different backgrounds. France had right-wing resistance groups and leftist – as well as Catholic, Communist and Militarist. However, inter-group cooperation was virtually non-existent. Moulin planned to unite all into one movement yet he needed a symbolic leader that everyone could rally behind: that man was Charles de Gaulle.

The exiled French general had warned of the defective French defences before the occupation but his caution was in vain. After fleeing to England he sought out Prime Minister Winston Churchill for his assistance in assembling a French resistance army. Churchill knew that France was the key to the success or failure of the Third Reich.

Firm in Hitler's fist, France gave the Nazis control of great wealth and the footing to easily repel Allied forces when it was necessary to do so. A strong and vibrant French resistance was essential to



French residents learn to use a radio. Most orders came in coded language via the BBC's broadcasts from England.

retaliate and break the back of the Nazi war machine.

REFUGEE GENERAL TAKES OVER

Churchill joyfully promised de Gaulle his support and allowed him on the BBC national radio station so he could speak to his compatriots. The tone of his first speech, held on 18th June, 1940, was in stark contrast to the French Government's complacent attitude:

"Whatever happens, the flame of French resistance must not and shall not die," said the general, who urged his compatriots to never give up.

Determined to unite the French resistance factions, Moulin travelled across France in the following months. In September 1941 he even met secretly with de Gaulle in London. On his return, he proudly showcased a matchbox smuggled into France. In it was contained a microfilm with the image of a letter in which de Gaulle declared his support for Moulin and the resistance.

Encouraged by the prospect of support from de Gaulle – and his British ties –

Moulin continued his work despite the danger: wherever he went he was accompanied by an assistant carrying an extra set of fake identification so he could quickly change papers if problems arose. After a year of tireless work, on 30th March, 1942, Moulin was pleased to report to London that all the resistance organisations he contacted had declared their total and complete support for de Gaulle.

THE RESISTANCE INCREASES

Meanwhile, the mood in France had shifted. After more than a year of German occupation, the French realised that nothing good came of bowing to the Nazis. On the contrary,

French workers starved, families were driven from their home and hearth, yet worst of all, the French Jews were sent with the Vichy regime's seal of approval to their death at concentration camps in the east. On 19th May, 1942, the resistance

MEANWHILE IN CHINA

RESISTANCE IGNITES AFTER HONG KONG'S FALL

Hong Kong fell to Japanese supremacy in December 1941 which accelerated resistance in the Japanese-occupied areas of Asia. The rise was massive in the Chinese province of Guangdong, adjacent to Hong Kong. Farmers, students and seafarers created a militia that grew to about 6,000 men.

As in Europe, the resistance groups sabotaged railway lines, ransacked telephone lines, blew up public buildings, and assisted downed US pilots to safety across the borders of India and Tibet.

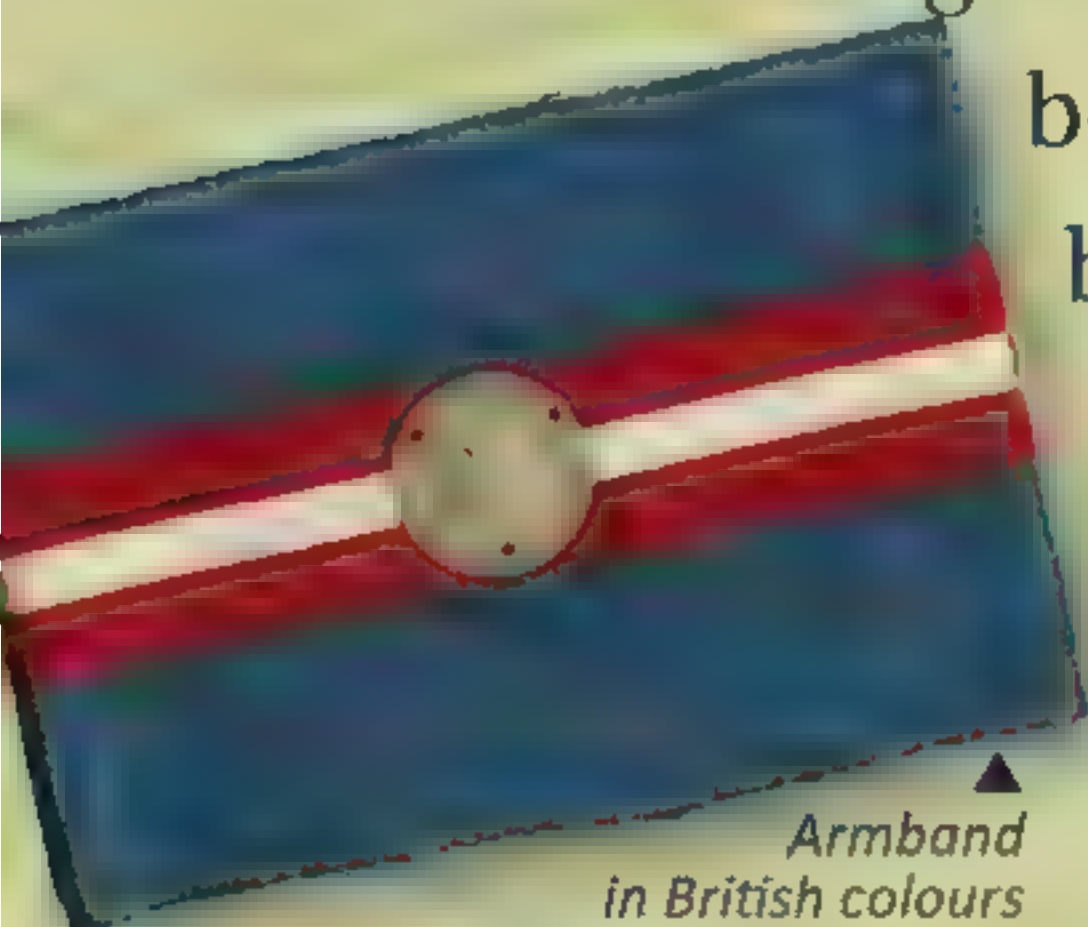


INGENUITY BESTED THE GERMANS

Innovation knew no bounds when it came to fooling the Germans: beer

boxes with false bottoms hid weapons and illegal newspapers, and small cameras hidden in glasses frames or watches

could photograph documents. But beneath the surface, the fear of discovery loomed constantly and resistance members carried both weapons and suicide pills.

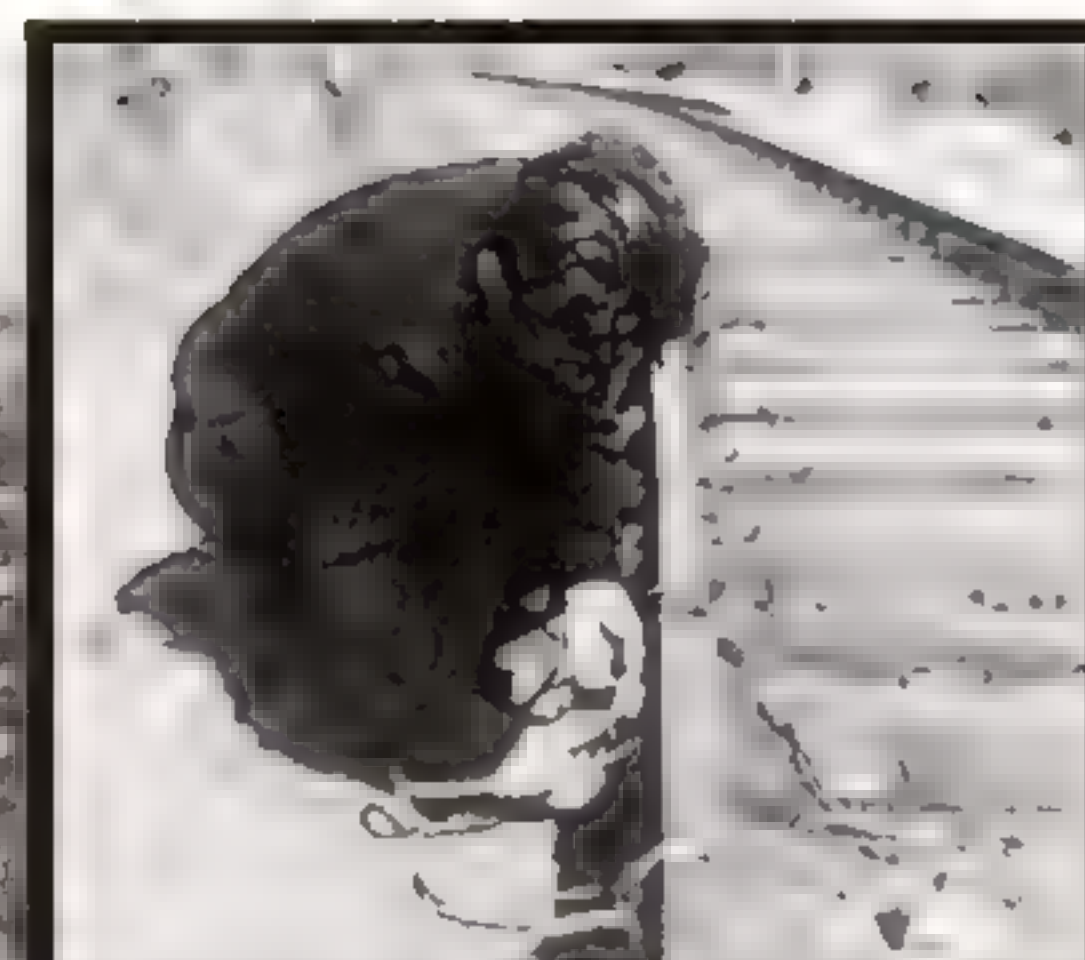


▲ Armband in British colours worn by freedom fighters after liberation.



▲ Radio made by French resistance members to communicate with SOE.

Railway sabotage was often coordinated to cut off the rail network in a whole region. After D-Day, it effectively delayed German reinforcements heading towards the front.



Small labs hidden in apartments produced explosives for the resistance's actions.



▲ Metal necklace carrying cyanide suicide pill.

▲ Detonator hidden in a cigarette case. The small container also held explosives.

▲ Forged ID card belonging to the British agent Nancy Wake.

▲ Microfilm camera used by French resistance members.

▲ This rubber sole was worn under the boot and covered the tracks of agents landing on the beaches of France.

▲ The map of flight routes over France was printed on silk and worn as a pocket scarf by British agents.

▲ British STEN machine gun. The cheap and reliable weapon was effective in Western European resistance.

assembled a large protest outside a concert hall in Lyon, where the Berlin Philharmonic was to play. The news of the demonstration spread rapidly through illegal newspapers and the anti-German protests moved throughout the country.

Two months later, the resistance became more radical and sabotaged a massive radio tower outside Paris. The tower was used by the Germans to disrupt the BBC radio signal and with it, de Gaulle's speeches. Yet saboteurs, armed with explosives, had put the station out of service. For the following two weeks BBC messages were able to reach the French public.

The successful action strengthened the French resistance, and in 1942 and 1943 they ramped up the sabotage efforts. Across France, railways, industrial plants and fuel depots were destroyed.

SUPPORT CAME FROM THE AIR

The rising resistance was rewarded with help from above. Shortly after the occupation of France, Churchill created the Special Operations Executive (SOE). The agency was tasked with boosting the resistance movements in Europe, especially the French. In Churchill's words, SOE would "set Europe ablaze". Much of the help consisted of weapon drops and agents

to train the freedom fighters. In France, more than 800 men were either airlifted from or dropped into French territory by the Moonlight Squadrons – a name earned because they only flew when the full moon made it possible to navigate.

In early 1944, both the flights over France and sabotage against Nazi occupiers were increased while the Germans faced opposition on all fronts. By

November 1942, the Allies had already landed in North Africa.

On the Eastern Front, the Wehrmacht's need for soldiers drained Germany of its workers. To alleviate the strain, the Nazi's forced the French to work in Germany. This move forced thousands of men to go underground and join the guerrilla sects called the Maquis, who took their name after the landscape they hid in,

KEY MOMENTS

NORWEGIANS DESTROYED HITLER'S NUCLEAR PROGRAM

The Norwegian hydroelectric plant, Vemork, produced heavy water for Hitler's nuclear program near Oslo.

27th February, 1943, after months of preparation Norwegian saboteurs placed

explosive charges on the plant's machinery and then detonated them thereafter.

The action delayed further production and so Hitler then abandoned his dreams of an A-bomb.



“25th August, 1944 a returning de Gaulle could declare Paris liberated”

on French *maquis* (shrubby areas). The Maquis were small units that could quickly move where they needed to engage in espionage or sabotage. They constantly changed their place of residence and rarely had a roof over their heads. Dry clothes and proper food were scarce, while organisation and communication were sometimes limited, but the movement succeeded executing large numbers of sabotage actions.

MAQUIS SET FRANCE ABLAZE

The more the fighters worked to sabotage, the harder the Nazi's responded with ever increasing ruthlessness.

The Gestapo used all means to force captive soldiers to betray their comrades: beatings by lash and rod, electric shock or water torture were common in German prison cells often resulting in death. The Germans' behaviour masked their increasing desperation – as early as January 1944, it became clear that an Allied invasion of Western Europe was imminent. Both the British and de Gaulle's forces again stepped up the sabotage. 27th

January, 1944, Churchill decided that supporting the Maquis' operations should be the second highest priority of the Royal Air Force (RAF), behind only the strategic bombing of Germany.

Shortly after, he assigned 100 aircraft to SOE's French division and dropped 5,000 Allied soldiers in France to arm and train the freedom fighters.

Meanwhile, the British developed plans to set the stage for D-Day. In the weeks prior to invasion, the resistance fighters were to destroy the rail system, to flood channels and to sabotage power stations, fuel depots and weapon arsenals. More than 1,200 targets were laid out in the plan orchestrated by de Gaulle. It was left to Jean Moulin to unite the resistance groups across France.

Working as one, they struck and everywhere along the coast, trains were derailed, bridges went up in smoke, and trees fell blocked the roadways. Most actions were highly effective. In Caen, a town near the

coast, the station master smashed the steam injectors on the locomotives and destroyed the water pumps for good measure. A 40-man unit led by the local café owner cut the telephone lines to Cherbourg thereby silencing much of Normandy's telecommunications. The impact of their actions brought things to a standstill.

MOULIN DISAPPEARED

The Allies were impressed with the resistance efforts. After the landing, Major General Lucian K Truscott Jr from the US VI Corps noted that their knowledge of the landscape and of the enemy's dispositions and movements was invaluable, and their fighting power extraordinary.

General Eisenhower estimated that the French Resistance had helped to shorten the war by about nine months.

On 25th August, 1944, General Charles de Gaulle arrived in France declaring Paris liberated with a resounding “Vive Paris”. The following day, he led a victory march through the Champs-Élysées to Notre-Dame Cathedral.

Moulin was missing from the procession. He had been arrested by the Gestapo near Lyon during a meeting with fellow resistance leaders on 21st June, 1943 and was sent to Montluc Prison in Lyon, in which he was detained until the beginning of July. Moulin never revealed anything to his captors and died near Metz on a train headed for Germany from injuries reportedly sustained in a suicide attempt.

Along with an about 150,000 other men and women, he gave his life in the fight for France's freedom. ■



After liberation the German forces were paraded in public through the streets of Paris.

PARTISAN WAR WAS FOUGHT WITHOUT MERCY

As harsh as resistance was in Western Europe, it was simply brutal in the east. Partisans of all ages and of both sexes fought fiercely against the German occupiers who lived in constant fear of falling prey to ambush. To quell the resistance, the Germans resorted to executing random civilians and gunning down entire villages.

GREECE



German soldiers raising a swastika flag before the Acropolis in May 1941. A few days later, Greek partisans took it down again.

■ Greek partisans were in constant war against the German occupiers. In 1944, German soldiers set fire to countless villages in search of partisans making nearly one million Greeks homeless. The brutality culminated when SS soldiers entered the village of Distomo, 180 km west of Athens, and massacred 218 men, women and children before beheading the city priest as revenge for partisan attacks.

YUGOSLAVIA



■ Josip Broz Tito led a 3-year guerrilla war from Yugoslavia's mountainous areas. By 1944, the ranks of his forces had swelled to nearly 800,000 strong, while Tito's partisans were

formed into a traditional army with its own air force and a small navy.



Men and women fought side by side in the Yugoslavian partisan movement.

SOVIET UNION



■ A month after the German invasion, the Communist Party adopted a directive creating partisan groups to sabotage telecommunications, kill German soldiers and destroy commodities. Hitler viewed the Soviet announcement as an opportunity to brutalise any resistance in the occupied territories. Yet the partisans

were so well organised that the Germans never gained full control of the Soviet Union while the partisans controlled large areas behind the German lines.

In 1942 partisans prevailed over 14,000 km² in the German occupied Bryansk region southwest of Moscow.

POLAND




■ The Polish resistance army, Armia Krajowa, was formed in February 1942. It provided effective resistance, notably by cutting off supply lines to the German forces in the Soviet Union and supplying the Allies with detailed and reliable intelligence. According

to British intelligence, 43 percent of all reports from Europe between 1939 and 1945 came from Polish sources. By capturing parts of the German V2 rocket tested near Blizna in central Poland, Armia Krajowa gave the Allies invaluable insight into the dreaded weapon.




In 1944, the Polish rebel army launched an uprising in Warsaw. The rebellion was defeated by SS forces killing up to 200,000 civilians during hostilities.





BATTLE OF STALINGRAD

1942-1943



The battle of Stalingrad will be the most crucial battle on the Eastern Front. In the rubble of the city's ruins, Hitler's Sixth Army meets embittered resistance from an enemy who refuses to give up and fiercely defends every metre of land. German soldiers go from building to building, fighting through the City, attacking with determination until their route is stopped by the river Volga. The soldiers are stopped in their tracks with nowhere to go, ahead lies hunger, cold and senseless death.

1942-43



1942 23 August Luftwaffe starts bombing Stalingrad.	14 September Battle of Stalingrad begins in the western suburbs.	29 October The Germans sit on 90 per cent of the City.	19 November Russian counter offensive "Operation Uranus".	23 November The Red Army encircles Hitler's Sixth Army.	1943 2 February The last Germans surrender.
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The night of 23 August, 1942, death rains down from the dark sky over Stalingrad. The roar from the German Luftwaffe cuts through the stillness of the night and shortly after, thousands of bombs hail down over the Soviet industrial city. Roads and railways disappear within seconds. Factories, hospitals and other concrete buildings collapse like a house of cards. On the river Volga which borders the city to the east, a large oil spill transforms it into an inferno of fire, sending clouds of thick black smoke skyward.

Soon the flames grab the city's apartment buildings, sending residents into a panic, escaping through the once magnificent industrial city that bears Stalin's name.

"The huge city stretching 56 km along the Volga, was consumed by fire. Everything was in flames and falling down. Death and disaster take their toll on thousands of families", notes the Soviet Lieutenant General Vasily Tjukov on the nightly attacks that cost more than 30,000 lives.

HITLER GOES ON THE ATTACK

About a year earlier, the German dictator Adolf Hitler ordered Operation Barbarossa – the invasion of the Soviet Union. At the end of June 1941, about 4 million German soldiers crossed the Soviet border over a 3,200 km wide front, stretching from the Baltic to the Black Sea. The goal was to crush Hitler's main ideological rival, Stalin,

and conquer the Soviet Union's vast natural resources. The rich oil fields of the Caucasus and the large agricultural areas with their vast cornfields were of special interest to Hitler, who dreamt of transforming the Soviet Union into one large storehouse for the German people. To make his dream a reality, the Führer is prepared to sweep millions of Soviet citizens out of the way – in his eyes they are Slavic sub-humans.

DEFEAT AT MOSCOW

The invasion of the Soviet Union is history's greatest military operation, but it came as a complete surprise to Stalin. Within two weeks, the Soviet dictator had organised his forces storming the Germans, 650 kilometres into the Soviet Union.

The Germans' winning streak does not look so good now. Stalin's troops soon begin to organise themselves and give the Germans unexpectedly stiff resistance. Later with stretched supply lines and the dreaded Russian Winter looming, there are big problems for Hitler's troops. In December 1941, the Germans suffer a humiliating defeat outside the walls of Moscow and are routed back to the west. The enraged Führer spews his frustration that his mighty warriors have been defeated by a "Jewish Bolshevik gang".

Farther south, the advance is better, but still slower than Hitler would like. The terrain is rough, the weather changing and the Russians are fighting more fiercely than expected. From Stalingrad the German's

50,000

Soviet citizens – voluntary and prisoners of war – fought in the Battle of Stalingrad.



Prior to the attack, Luftwaffe bombers threw 1,000 tons of bombs on Stalingrad. At least 30,000 of the city's more than 400,000 people, lost their lives.

organise an effective counter attack. In July 1942, frustrated by the slow invasion, Hitler orders his strongest army – the then 300,000-strong Sixth Army – to take the city. A conquest of Stalingrad will break the back of the Soviet defences and pave the way for a German major victory on the Eastern Front, says the Führer.

STALIN SAVED THE CITY

Widespread bombing in August 1942 put Stalingrad in ruins, but the city's defences didn't falter. The authorities mobilise residents of all ages with the words: "Those, who do not assist the Red Army in every way and support its order and discipline, are traitors and must be killed without mercy."

Despite 30,000 deaths during the nightly bombing raids, Stalin refuses to evacuate the city that bears his name. In 1918 Stalingrad became the setting for one of the Bolshevik's most mythical victories during the Russian Civil War, where Stalin himself fought at times at the Front. According to official Soviet history, Stalin almost saved the city by himself and so it was named after him, as its saviour.

During the time of the Second World War, Stalingrad had turned into a Soviet model city with its countless factories playing a crucial role in the production of commodities like oil and weapons. The city has major economic and strategic importance – as well as great symbolic value. For Germans, a conquest of Stalin's own city would be a welcome propaganda victory for the humiliation of Moscow. For Russians, the city is the symbol of the Russian people's will to fight.

GERMANS ARE SPLIT

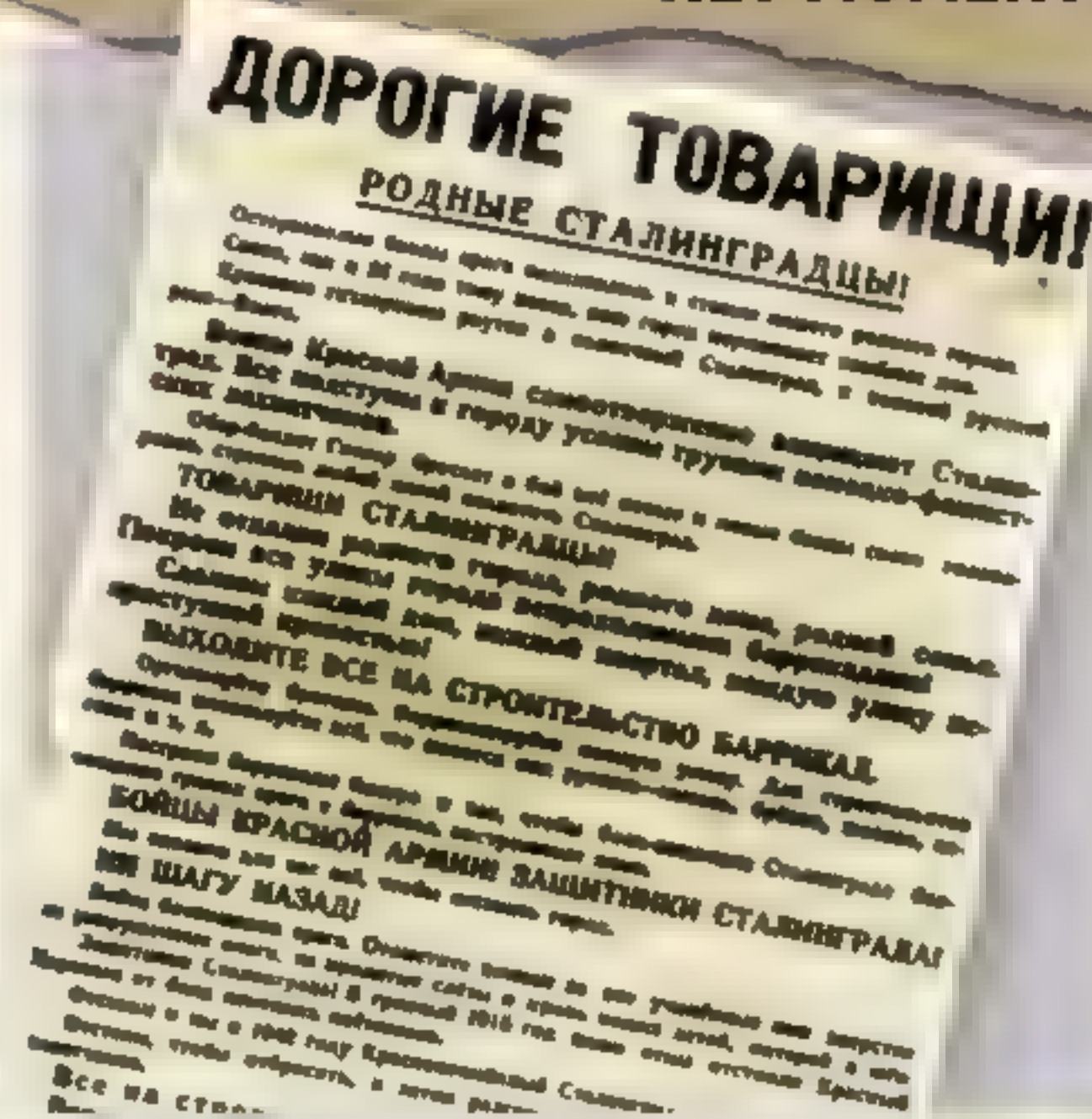
At the steppes, west of Stalingrad, Hitler struggles on. His troops are accustomed to the weather during the summer months and Soviet resistance on the road. And on September 14, the Sixth Army is ready to attack the city itself. From 6.30 pm the

KEY MOMENTS

ORDER NUMBER 227

July 28, 1942, Stalin's famous order no. 227 was issued whose main message was distributed in Stalingrad: "Not one step back!" Russian soldiers were ordered to fight to the death. Behind the front line troops were

shot down if they ran from the scene. And any disobedient soldier was sent to 'punishment battalions' where they were forced to fight the toughest battles and even served as human mine-sweepers.





In mid-September, the Germans move into Stalingrad's suburbs – beginning a five-month long, nightmare.

TECHNIQUE...

CULTURE.....

ECONOMY.

EVERYDAY



Civilians seek refuge in burrows

Before the German attack, Stalingrad was home to about 400,000 people. Few managed to escape before Stalin forbade it. Luftwaffe bombing made the city uninhabitable for the remaining, who moved into makeshift burrows in the

ravines near the town. Here, they witnessed an endless nightmare of explosions, hunger, disease and death. Many, even town's women, were also called up either for the army or for example, to dig trenches.

German planes and tanks rattle toward the city. Before them, Stalingrad lies full of concrete ruins, trenches and bomb craters.

Hitler has staked everything on his Blitzkrieg tactic – based on close cooperation between fighters, quickly advancing armored tanks and infantry – enabling the Germans to conquer the city in a short time.

However, the tanks are stuck in the devastated streets and the Luftwaffe dare not bomb for fear of hitting their own troops. The many burned buildings block the way for the advancing Germans and split them up into hundreds of small groups. Flocks of German soldiers run uncertainly through Stalingrad's grey and sooty streets where they must fight their way building to building – a style of fighting which is unfamiliar to them.

“SHOOTING FROM ALL SIDES”

While the Germans are trying to get used to the unfamiliar urban warfare, the Red Army create small, mobile groups armed with machine guns, hand grenades, bottles with flammable liquid and anti-tank rifles. Each group consists of 50-100

men. In Stalingrad's empty buildings they establish small garrisons that constantly bombard the Germans.

“You cannot even see them. They have found a foothold in homes and basements and shoot at us from all sides. Barbarians! They are using gangster tactics”, notes the German soldier Wilhelm Hoffman.

The small Russian groups act largely on their own and move much faster around Stalingrad's streets than the big German units that find it difficult to adapt from the great battles on the plains.

“RAT WAR”, BITTER FIGHTING

Despite fierce Soviet resistance, the Germans move slowly through Stalingrad – metre by metre – and force the Russians to take refuge in ruins and sewers. Desperate Soviet soldiers throw themselves into bloody man-to-man combat with bayonets and grenades, or try to lure German tanks in ambush. Everywhere, streets frame the brutal fighting that is constantly pushing the front line back and forth. The strategically important railway station in the middle of Stalingrad changes hands a full 15 times in just five days.

“The Russians are shooting from all sides. We must stay in our basement, we cannot move around the streets. Our experienced soldiers have never experienced such bitter fighting before”, wrote Wilhelm Hoffman about the street fighting, the Germans baptize “rat war”.

Hitler's victory accustomed troops are shocked by the enemy's fighting zeal and irritated by the slow advance. Often, entire regiments spend up to a day just clearing a

single building because the teams move from floor to floor and from room to room.

“Our battalion has attacked four times, each time they've been stopped. Russian snipers hit all who show caution – even behind the barricades”, wrote Hoffman.

NIGHT BELONGS TO THE RUSSIANS

The Soviet resistance is kept on their feet by the power of arms, munitions and fresh

Battles cost both sides thousands of lives. On a single night in October, the Russians carried 3,500 wounded soldiers out of the City.

VASILIJ ZAJTSEV 1915-1991

MARKSMAN FROM STALINGRAD

■ One of the Red Army's main weapons in the battle for Stalingrad was sniper fire and among the most prominent snipers was the 62nd Army's Vasily Zajtsev. With his Mosin rifle, the former shepherd boy from the mountains, took the lives of 149 Germans single-handedly during October, 1942. Zajtsev was subsequently made the hub of the Soviet

propaganda machine. Russians read about how Zajtsev fought a several-day-long duel with a mysterious German Major named König, allegedly the chief of the sniper school in Berlin and sent to Stalingrad to get to Zajtsev. Russian action eventually prevailed. König's telescopic sight is exhibited in a museum in Moscow.

Shot 149 German's in one month – Head of Tjujkov's sniper school – Awarded medal



soldiers sailing daily across the Volga to a number of bridgeheads on the river's west bank. During the day time, Luftwaffe shows no mercy and mercilessly bombs the Russian vessels, but when darkness descends over Stalingrad the river belongs to the Russians. Steamships, sloops, dredgers, fishing boats and rowing boats shuttle back and forth across the river with supplies and reserve troops.

Supply lines transform Hitler's blitz into a war of attrition, and the Germans are losing soldiers in droves. An especially severe loss of officers threatens to cripple Hitler's troops.

"The Russian fire cost us heavy losses. Both men and officers are disillusioned and quiet. We have lost many men: every time you move you have to jump over dead bodies. The soldiers called Stalingrad our own mass grave", notes Hoffman gloomy.

BOMBER ATTACKS 3,000 TIMES

The Sixth Army commander, General Friedrich Paulus, designates 14 October as "the day when we must try to break the deadlock and put an end to the German

soldiers' hardships". In a gigantic offensive, 90,000 Germans charge into Stalingrad's northern industrial area in a decisive attempt to reach the Volga's west bank. Massive bombs rain from Luftwaffe, transforming the 4.5 km wide Front into a burning inferno where explosions follow explosions and buildings crumble into dust, while infantry and armored tanks grind forward. According to the Soviet Lieutenant General Tjukov, German bombers implement the entire 3,000 attacks with "unprecedented ferocity".

As time progresses, the Soviet positions slowly disintegrate under the pressure of the Luftwaffe and the Sixth Army. Metre by metre, the Germans push the final three kilometres up to the Volga. It's midnight when they arrive at the river.

Paulus's plan is to drive south along the Volga and meet up with the forces that have consumed the city centre and the southern areas. En route, he will interrupt the supply lines of the Volga and encircle the Russians. But Tjukov has a trap ready.

"Paulus's tactics were clear: he tried to lure our main forces to the factory area and

paralyse them there, while he secretly planned the attack on other sectors", explains Tjukov, who orders his men to halt the German advance along the Volga – at any cost.

As the sun rises over Stalingrad on the third day of the offensive, Paulus's troops have conquered so much of Stalingrad that they can almost break the flow of Russian soldiers over the Volga. Tjukov's exhausted men can barely fight on. Front lines no longer exist and the chaotic battles have sucked all of the soldiers' courage and fighting spirit. Stalingrad's defence falters as never before.

In a crucial rescue mission, in the midst of Soviet forces darkest hour, a Soviet ship in the shelter of the following night, manages to smuggle an entire division of soldiers across the Volga. The fresh men give Tjukov's forces renewed vigour to continue the dogged resistance against advancing German troops.

SOLDIERS FIGHT WITH SHOVELS

In Stalingrad's large factory buildings, the fighting is outrageously violent. The

“Stalingrad has made us into creatures with no feelings”

soldiers chase each other with flame throwers, knives, shovels and clubs – often separated by only a wall or a floor.

“The Front is transformed into a corridor between burnt-out a room: the Front is the thin ceiling between two floors. The incessant battles go on from noon to midnight. From floor to floor we bombard each other with grenades – surrounded by clouds of dust and smoke, heaps of shells, rivers of blood, fragments of furniture and people”, wrote the German lieutenant Wiener about the brutal fighting, which is also covered by the journalist Vasily Grossman from the Soviet army newspaper Red Star:

“Not one man in the division gave an inch in this battle. And if the Germans succeeded in conquering a certain point, it meant that not a single man from the Red Army had survived and could defend it. It was as if the dead ceded their strength to the survivors.”

Despite the fine words, the Russians are threatened with complete annihilation. Paulus's men are close to having surrounded the last remnants of the Red Army, west of the Volga, and Tjukov must make an unprecedented and daring decision: tactical withdrawal – against

Stalin's orders – to a small area central to the city which is easier to defend with the Sixth Army on their heels, pulling the Russians back and entrenching themselves near the Volga. The retreat buys the Russians precious time to regroup.

GERMANS, EXHAUSTED AND BITTER

When the front begins to stabilise in late October, the Germans have conquered 90 per cent of Stalingrad. But the campaign has cost dearly. Winter sets in and the cold shakes the Sixth Army soldiers, while the snow is whipping them in the face. The Russian winter is pushing temperatures down below -40°C and the Germans, unlike the Russians, are not dressed for winter war. Frost bite and amputations will soon become a part of everyday life. Nearly 15,000 soldiers have lost limbs because of the cold.

While the frost bites, Soviet war planes relentlessly attack German barracks and tents and the Red Army artillery sends constant bursts of shells against the Germans, from the Volga's opposite bank. The explosions rob the Germans of the sleep their bodies scream for.

“We have not been resting. Everyone is depressed. Stalingrad has transformed us

into creatures without feelings – we are exhausted and disillusioned. We barely dare lift our heads because of the noise from the Russian artillery”, wrote the soldier, Hoffman.

THE TRAP BITES

While hiding from artillery fire in Stalingrad's ruins, the exhausted soldiers are completely unaware that the real threat is much farther away than the guns on the other side of the Volga. While the Germans have fought from building to building throughout Stalingrad, the Red Army has secretly accumulated more than one million troops, 13,500 guns and 900 tanks on the steppes, north and south of Stalingrad, ready for Operation Uranus.

Early in the morning on November 19 there were reports of an 80 minute long bombardment in the sky over the frozen landscape outside Stalingrad, so powerful that the earth shook. Soviet tanks and foot soldiers installed themselves on the steppes northwest of Stalingrad. Exactly two minutes after the last blow, the Red Army storm forward. By noon, Stalin's troops break through the Germans' flanks which are now manned by Romanian and Italian auxiliary soldiers.

Paulus must abandon fighting in Stalingrad's ruins and send his tanks to the new Front that the Russians have opened up to the west. Shortly after, reports arrive saying that the Russians are now attacking from the southeast, too.

A gigantic pincer movement is underway and the Russians' rapid advance spreads panic through the German lines. They quickly try to organise a solution. Exhausted soldiers, inadequate supplies and vulnerable lines of communication make Hitler's troops at an easy opponent.

BATTLE OF STALINGRAD

RED ARMY SURROUNDS GERMANS

Stalingrad should have been Hitler's big, symbolic triumph over Stalin after the humiliating defeat on the Front at Moscow. Instead, the city was a huge slaughter house, where the fortunes of war definitely turned. The town was unexpectedly harsh and only too late, it became clear that Stalingrad had effectively acted as bait in a giant Soviet trap for Hitler's strong Sixth Army.

23 AUGUST – 29 OCTOBER 1942

Soviet defence pockets in late October

✚ Airfield



■ After a violent bombardment, air supported German troops move slowly through Stalingrad. After more than two months of brutal urban combat, Hitler's Sixth Army stand over 90 per cent of the City – the Red Army retained two small pockets of defence.

19 NOVEMBER 1942 – 12 JANUARY 1943

German defence line Jan 12

✚ Airfield



■ With a gigantic pincer movement, the Red Army encircle the Sixth Army from the North and Southeast. Rather than allowing the 275,000 men to break out, Hitler orders that the troops should stand firm in Stalingrad – and supplies will be flown in.

To make the troops more mobile, the Red Army divided its forces into small, individual operating units.

Within a few days Stalin's men overwhelm the confused and tired Germans.

On November 23, the Soviet trap closes on Hitler's Sixth Army.

While the Soviet soldiers are ecstatic and burst into gigantic celebrations, the remaining 275,000 German soldiers are in trouble, pressed up against Stalingrad, from all sides.

AIRLIFT RESCUES SURROUNDED MEN
Distracted General Paulus sends a plea for help from Berlin:

"The army is surrounded ... We have little fuel left; when it is used, the tanks and heavy weapons will be immobile. Ammunition is scarce, our supplies will only last six days ... Requesting the freedom to act ... This situation may force us to leave Stalingrad".

Hitler is now facing perhaps his most important decision since the outbreak of war in 1939. If he pulls the Sixth Army out of Stalingrad, the army will survive and be able to stabilise the German position in the Caucasus. But should he decide to retreat,

that will undoubtedly mean that Stalingrad is lost to the Russians.

At worst, Hitler thinks that the German troops' fight will collapse and put the whole invasion of the Soviet Union in danger. He overhears Luftwaffe chief, Jeschonnek's warnings and decides that the Sixth Army must hold Stalingrad assisted by an airlift of 700 tons supplies, daily. But Luftwaffe finds it impossible to deliver them in the harsh weather and with its limited number of aircraft.

Undeterred, Hitler's Sixth Army is informed that it "must hold its position at any cost, despite the threat of temporary encirclement by the Russians".

Paulus and the other the officers are shaken. If the army doesn't break out soon, it will be doomed. The officers suggest going against Hitler's orders to

13 JANUARY – 2 FEBRUARY 1943

German pockets late January

+ Airfield



■ Luftwaffe fails to deliver sufficient supplies, and hungry and freezing, the Germans huddle together for survival. The last remnants of the Sixth Army are huddled in two isolated pockets when they finally give up.



Hitler ordered the Luftwaffe to fly 700 tons daily supplies to the encircled Sixth Army. Constant blizzards and lack of space made the task impossible and Russian air defences shot down an average five German aircraft every day.

save soldiers' lives, but always loyal, Paulus refuses. On 24 November, Hitler cuts through all the protests with his final order: "Volga Front and Northern Front must be maintained at all costs! Supplies will come by air".

LUFTWAFFE'S MISSING PLANE

As Paulus and Jeschonnek have foreseen, the airlifts struggle to get supplies to the Sixth Army.

Pilots must repeatedly engage in reckless manoeuvres with the heavy, lumbering transport planes, when cold, dark, fog and snowstorms force them to take off and land in the dark. On land, fighters work hard under appalling conditions to make the runways usable. Several of the airfields don't have snow plows and the exhausted men have to clear the 30 centimetres of new snow daily. Also they don't have hangars, oil and other basic necessities. "The cold

has made it incredibly difficult to start the engines and maintain them. Without any protection from the cold or snowstorms, our staff toil incessantly, until their hands freeze", wrote the German General Wolfgang Pickert about the hardships.

In the air, transport planes are an easy target for enemy fighters. The Russians quickly learn the German's fixed routes and need only lie in wait to shoot down the Germans' heavy giants. Luftwaffe lost about five flights daily and deliveries are becoming increasingly uncertain and unstable. In late November, the Luftwaffe can only deliver 10 per cent of the planned daily delivery – to an army which has been starving for several weeks. In late December the Germans lose their two main

airports to the Red Army's advancing troops and even the most stubborn can gradually see that the rickety airlift can in no way save Hitler's Sixth Army.

SOLDIERS ARE STARVING TO DEATH

Inside Stalingrad there's famine and desperation. The violent snow and cold makes life an unbearable suffering and the small, pitiful bread rations are all that's keeping the men alive. Most soldiers are physically so malnourished that they look like bony old men.

"Until July, every man received a ration of 100 grams of bread. After Christmas, the ration was reduced to 50 grams. Later, only men on the Front received 50 grams. The rest got water soup, which we tried to improve with the bones of dead horses, we dug up", wrote a German colonel.

On 7 January, Paulus received a radio message with a definitive ultimatum from the Russians:

"You, as the commander, and all the officers of the surrounded forces, should realise that you do not have a realistic chance to break free. Your position is hopeless and further resistance is futile", is the message from the Soviet generals.

They promise that the Germans will get medical care and food rations if they surrender. But the Germans do not accept

Up to 100,000 of the approximately 275,000 encircled soldiers lost their lives during the Soviet counter offensive. Many died of cold, and the living had to pull the clothes from the dead in order to survive.

the extended hand, they would rather the Sixth Army be wiped out. Paulus rejects the offer.

SIXTH ARMY FALLS APART

At 8.05 the next morning, the Russians send flares up into the winter sky over Stalingrad's ruins. Seconds later, 7,000 guns open fire on the snow frozen landscape. The German soldiers huddle in the trenches while the explosions from the Soviet artillery hammer down. For 55 long minutes, the Germans are showered with soil and metal splinters. Soviet foot soldiers and tanks speed across the plains toward the German positions. The Germans are appalled yet continue to fight for their lives in the tearing snowstorm. With full strength, the Red Army thunders on crushing everything in its path. With all hope finally gone, the German soldiers begin to leave their posts, while Soviet tanks with banner wielding soldiers on top approach Stalingrad to the tune of communist battle songs.

Frozen lumps of corpses are strewn throughout the winter-hardened ground where small groups of panicked Germans run in random directions. Starved and wounded soldiers crawl and drag

After the battle Soviet soldiers were honoured with a medal "For the defence of Stalingrad".

themselves through the snow. The fallen are immediately assaulted by former comrades who rip clothes and boots from the dead to increase their own chance of survival against the brutal blizzard. Everywhere, the landscape is littered with burnt-out tanks and remnants of the dying Sixth Army.

While the world collapses around him, Paulus sits in a dark cellar under the ruins of a department store where he receives the order from Hitler to fight to the last drop of blood:

"Surrender is not an option! The troops must defend themselves to the last!"

The last Germans retreat into Stalingrad's interior as fighting has turned into a ruined landscape. Here, they come together in dark basements and wait, sick,

“Famished soldiers drag themselves through the snow”

dying and traumatised, for their fate. "Stalingrad is no longer a city. By day it is a huge cloud of burning, blinding smoke. And when night comes – these haunting, howling, cursed nights – dogs leap in the Volga and swim desperately to reach the other side. Nights in Stalingrad are a nightmare for them. Even animals want to escape from this hell", wrote the German Lieutenant Wiener.

Before long, the advancing Russians divide Germans into two isolated pockets. In the streets are meagre, shabby soldiers, wracked from exhaustion. Reluctantly, Paulus must stop rations for the 25,000 wounded, so that the soldiers still able to fight can be kept alive.

German officers openly discuss whether to surrender or to commit suicide. Some still speak fanatically about fighting to the bitter end and to be an inspiration for the future of German youth.

Paulus sends a telegram to Berlin and Hitler, begging to be allowed to surrender:

"The troops are without food and ammunition ... It is inevitable that we collapse. The army are asking for permission to surrender and save the remaining lives".

The Führer responds by appointing Paulus to Field Marshal. No German Field Marshal has ever surrendered in battle, so the message is clear: fight to the death.

PAULUS SURRENDERS

The Russians cut directly through to Stalingrad's heart where thousands of Germans stand with their hands over their heads in surrender. Others do not even have the strength to surrender, but collapse on the streets wounded, starving and exhausted. The Russian soldier, Mansur Abdulin, who went to liberate Stalingrad, describes the absurd scene:

"White cloths were hanging from window sills and high on top of the rubble is a pile of white rags. It is still. There's not a sound. 'Surrender'. I do not remember who said the word, but it is said softly as if the word said quietly, might have less impact, it might scare the fear away".

While Stalin's forces squeezes the last breath from the German soldiers, Paulus finally realises that the battle is lost.

On 31 January the exhausted, ill and disillusioned Field Marshal surrenders to a mere 21-year-old Russian lieutenant. Two days later the last encircled and surrounded German units in Stalingrad's northern industrial area, also surrender. After nearly five months of uninterrupted strikes and fighting, silence finally falls on Stalingrad. ■







WAR ON MANY FRONTS



In February 1941, with tears rolling down her cheeks, a Frenchwoman watches as her country's last troops are evacuated to safer colonies in Africa. Hers and millions of others' lives were turned upside down by war that split families across all fronts.

World War II was not only fought on the battlefield. Back home, women donned working clothes and helped produce ammunition and tanks, while others reaped the harvest and tended to the wounded.

Rosie the Riveter: the poster "We Can Do It!" was produced in 1942 and encouraged women to work in war production, while the men fought at the front.



Women's Army: British women from the Women's Land Army harvest crops. During the war, the British government conscripted citizens into the Land Army, which had over 80,000 women.



Care for the Children: an estimated 800,000 children were evacuated from London and other major British cities at the beginning of the war.



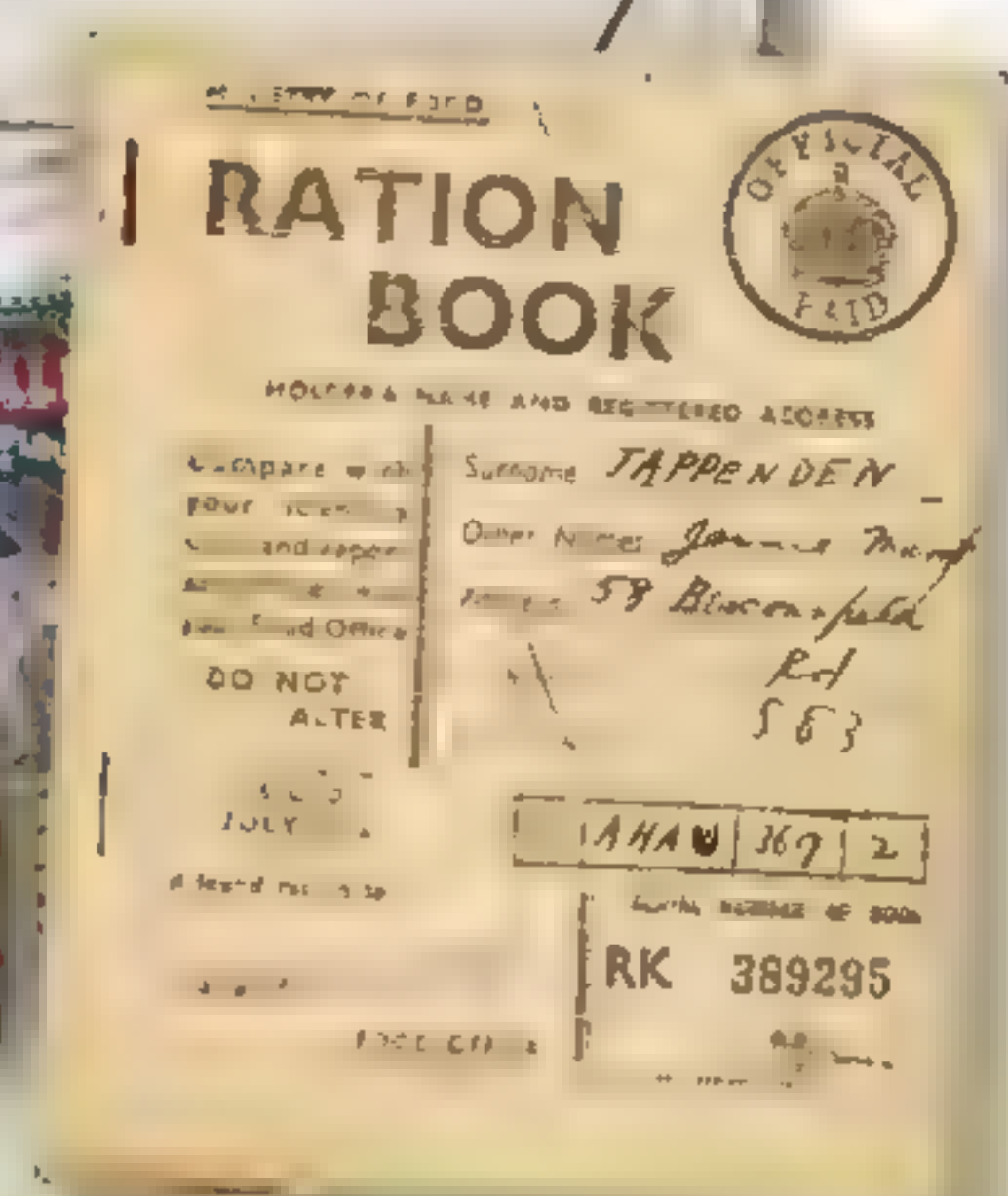


Japanese-American internment camps: over 110,000 Japanese-Americans were forced into camps along the Pacific coast after the attack on Pearl Harbor. The US government feared they were spies for Japan.



Race: USA's African Americans also participated in the war. Over 2.5 million black soldiers fought in segregated units during the war.

Rationing: basic foods such as flour, sugar and eggs were rationed to prevent hunger and famine.



THE WESTERN FRONT

While men fought, women worked in factories and in fields. They produced ammunition and harvested vital grains and vegetables from farms. Meanwhile, they tended to the duties of everyday life while rationing everything from petrol and rubber to paper and tea. In the USA, tours by car were banned, and in Great Britain, rationing lasted until 1954.



REARMAMENT Women produced everything from ammunition to airplanes at the factories.

In total, the Allies built over 400,000 fighter and bombers during the war.

The need for labour was so huge that 6.5 million women worked in the arms industry.



A meal in pay; life in the Soviet Union was brutal. For civilians, factory work was one of the few ways to survive. Work at the arms factories guaranteed a daily meal and kept starvation at bay.



CIVILIANS Residents of Leningrad flee after a German bombing. 12 to 14 million civilians perished in the Soviet Union.

Fearful Russian children gaze at the sky during a bombing near Minsk.

Croatian Ante Pavelic imprisoned Serbs in eight KZ camps erected by the fascist movement Ustaše.



Greece: in 1940, Italy repeatedly attempted to invade Greece without success. Only in May 1941 did Hitler's troops succeed.



Propaganda: Soviet propaganda posters urged civilians to uncover spies. Other propaganda portrayed the Germans as cannibals and murderers who killed indiscriminately, including prisoners.

THE EASTERN FRONT

■ 30 million people lost their lives during the fighting on the Eastern Front, when the Nazis and Soviets collided. Hitler craved *Lebensraum* (living space) for the German people necessitating removal of the Slavic peoples to the east. The two great powers also invaded the Balkans, Greece and Finland. For civilians, each day was a struggle to keep hunger, exposure and disease at bay.



Molotov Cocktail: bottles were filled with gasoline and the homemade bombs were used against Russian tanks. The weapon was named after Soviet Minister of Foreign Affairs Vyacheslav Molotov.



Cavalry: the Polish army was regarded as hopelessly outdated, still riding cavalry horses. Despite their lack of modern weaponry, they fought bravely and held up against Hitler's forces for almost as long as that of France.

Malaria and typhus: an American soldier gets an insecticide sprayed directly onto his body. The chemical effectively protected against malaria and typhoid. The two diseases were common across the Pacific islands where the United States fought against Japan.



WE MAY BE 'DOWN UNDER' BUT WE'RE STILL ON TOP

Down under: up to one million Australians fought for the British Empire.

Prisoners of war: an unknown photographer captured the execution of a British soldier in a Japanese prison camp, identified as the Australian Sergeant Leonard G Siffleet.



Recuperation: the whole of the British Empire was involved in the war. In India, Allied troops get respite while carried by rickshaw to the cinema.



Chinese air base: a Chinese soldier guarding an American fighter plane at an air base in China. The Americans were allowed to utilise runways in western China that were untouched by the Japanese.

ASIA

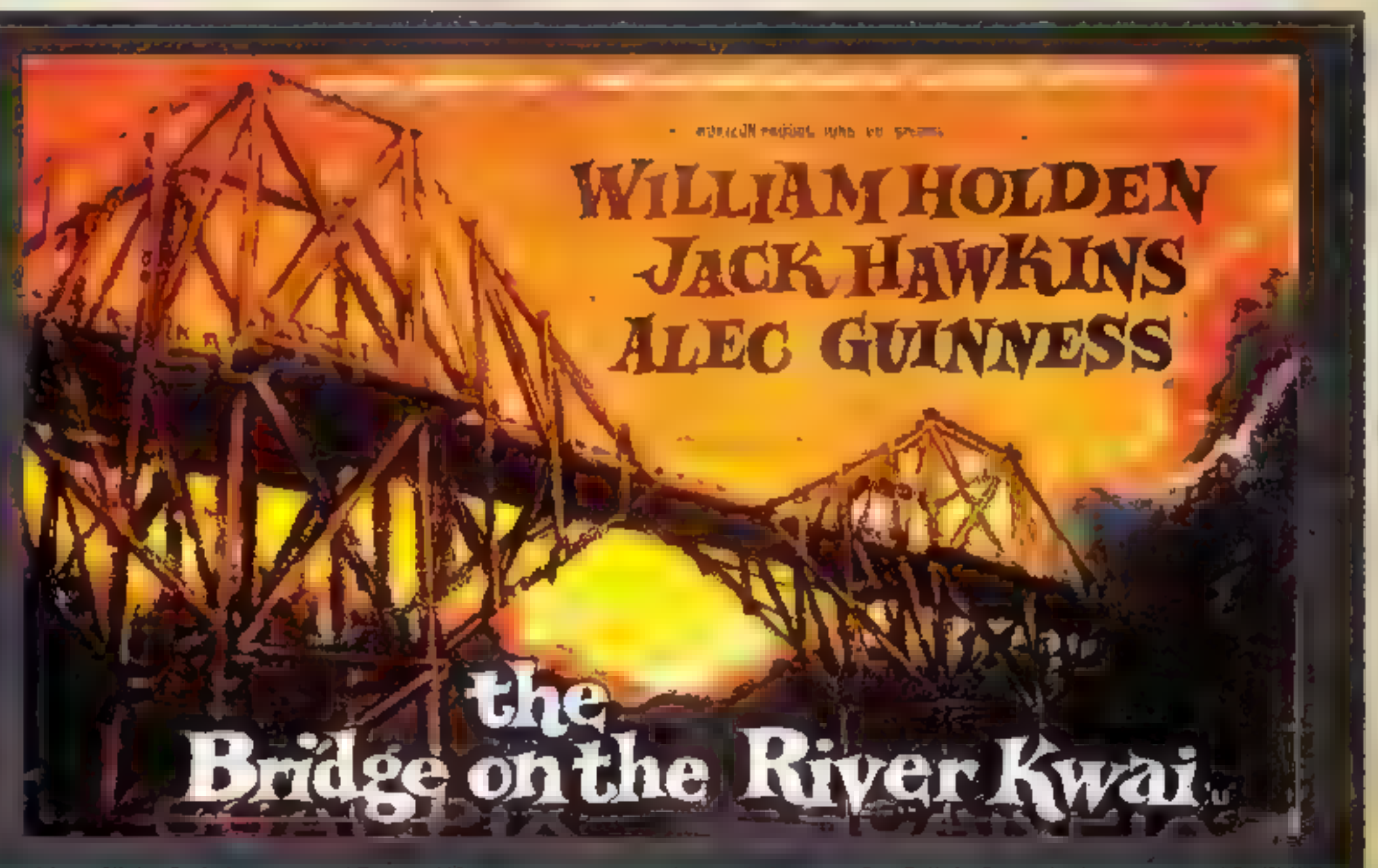
■ The war in Asia was as brutal as in Europe – Over 30 million people lost their lives. Many soldiers were killed in the battles across Pacific islands, but Allied POWs also perished in Japanese labour camps. The camps' conditions were so barbarous that one-in-three died of hunger, illness or exhaustion. The war ended only when the United States dropped two atomic bombs over Japan in August 1945.



A-bombs: time has stalled on a melted clock found after the atomic bomb detonated over Nagasaki.



CAPTIVITY The Japanese treated their POWs mercilessly. Thousands starved to death while others died during forced labour in the Asian jungle.



Brutal forced labour took place on the Burma Railway. The famous 1957 film, *The Bridge over the River Kwai*, was loosely based on accounts of British railway workers.





THE INVASION OF NORMANDY

1944



At 07.00 on 6th June, 1944, Allied landing vessels strike Normandy's sandy coastline. For nearly three hours, the soldiers have battled the wind, water, cold and seasickness in their small boats, yet the men are focused on the goal: charge across the Atlantic Ocean, defeat the German forces, and create a bridgehead in France. As soon as the attack signal sounds, the lander's door swings away and troops surge out into the treacherous water. They are greeted by the fiery wrath of the German defenders.

D-Day has begun.

6th June, 1944

00.15

23,500 allied paratroopers land behind the German lines.

03.00

British aircraft drop "window", metal foil to confuse German radar systems.

05.30

The Allies bombard the five beaches where the soldiers will land.

06.30

The first wave of soldiers land on the beaches.

00.15 03.00 05.30 06.30

At 05.00 on 6th June, 1944 German Major Werner Pluskat scouts the Atlantic Ocean through his binoculars. He has searched the waves several times tonight. His last report at 00.20, over the phone to the headquarters in Berlin: turbulent sea, no ships.

This time, a fearsome sight meets his gaze: "It's the invasion! There must be 10,000 ships out here!" Pluskat is stunned as voice is drowned out by the bombardment of the approaching ships. The invasion of German-occupied France has begun, and Pluskat is witness to the largest naval invasion in history: 7,000 ships, 11,600 aircraft and nearly 156,000 soldiers approach the coast of Normandy.

What Pluskat does not know is that the first Allied troops have already landed with parachutes behind the German lines just past midnight. And at 06.30, the first landing craft reach the codenamed "Omaha Beach", where the major is located. They

have a dramatic welcome from the Germans who greet them by opening fire.

Among the first soldiers to land is American Robert Sales.

"Machine guns were all over top of us, just like you were in a bees' nest. The captain was the first one off the boat and was hit on the ramp and fell into the water.... The only thing that saved me, I stumbled and went off the side of that ramp.... We were cut to pieces." recalled Sales about the "endless horrors" that day.

BRITISH RETREATED FROM EUROPE

Four years earlier, in the summer of 1940, the Germans conquered Western Europe and surrounded many thousands of British troops on the northern French coast.

Only a desperate evacuation attempt saved the remnants of the British army before the Germans arrive - ever since, army leadership dreamt of returning to liberate the occupied territories. To that end, in January 1943, Great Britain and the

US joined forces to plan the vast operation. Later that year the date of the invasion, codenamed "Overlord", was set for May 1944.

Supreme command was placed with US General Dwight D Eisenhower, who set clear orders: build an invasion force, establish a bridgehead on the continent, and drive to Berlin.

Even before Eisenhower's

A few hours before the invasion, thousands of paratroopers jump over Normandy. Their task is to secure the flanks of the invasion force.

appointment, the British conducted extensive reconnaissance to determine where the invasion should take place. From Norway in the north to the Spanish-French border in the south, all possible landing areas were carefully analysed.

Only a handful of places were suitable because the invasion ships and aircraft must be able to reach it from Great Britain. Although Denmark, the Netherlands and southern France were all seriously considered, Eisenhower eventually decided: the tide of the war must be reversed through Normandy. While the area was further away from the English coast than Calais, intelligence provided by the French resistance and others described it as less fortified with five major landing beaches.

INVASION POSTPONED

With both time and location determined, a massive concentration of troops was gathered in southern England. Vast convoys with up to 160 ships sailed on regular voyages from the US to Britain carrying soldiers, arms and equipment. The British had to use all available fields, roadsides and empty spaces to store materials.

By the spring of 1944, the whole of southern England was, in effect, one colossal training camp.

As the scale of the invasion grew, the Allies required more landing vessels causing a postponement of the invasion. The new date was set between 5th and 7th June, at low tide when the full moon would illuminate the night for the paratroopers.

Despite the massive scale of the force set to attack Normandy, the invasion's success depended on the secrecy of the preparations. To that end the Allies used diversion tactics to mislead the Germans with conflicting information. The Germans received false information detailing dates and landing spots purposely leaked via secret German codes broken by the British in 1942. The decoy plans indicated that the Allies were plotting to invade, to name a few, the Balkans, southern France, Norway and Calais. Whether the

MEANWHILE IN ITALY**THE AMERICANS INVADE ROME**

On 4th June, 1944, the American forces captured Rome. Their achievement, however, is overshadowed by the invasion of Normandy just two days later.

Nine months before the conquest of Rome - 3rd September, 1943 - Allied troops had invaded mainland Italy for the first time. After relatively rapid progress the invasion forces met fierce opposition from German troops who fought to repel the Allies from Axis territories.

In all, the intense battles in Italy cost more than 120,000 Allied soldiers' lives.

**HISTORY'S LARGEST NAVAL INVASION**

The Normandy Landings had been planned down to the last detail. On 6th June, 1944, the extensive preparations would face their final test.

26th May, 1940

The German invasion of France forces the British to evacuate approximately 340,000 soldiers from the port city of Dunkirk. The humiliating defeat is, according to Churchill, a "colossal military disaster".

19th August, 1942

6,000 Allied soldiers attack the northern French port of Dieppe. The majority are killed or wounded in the operation, which ends in retreat.

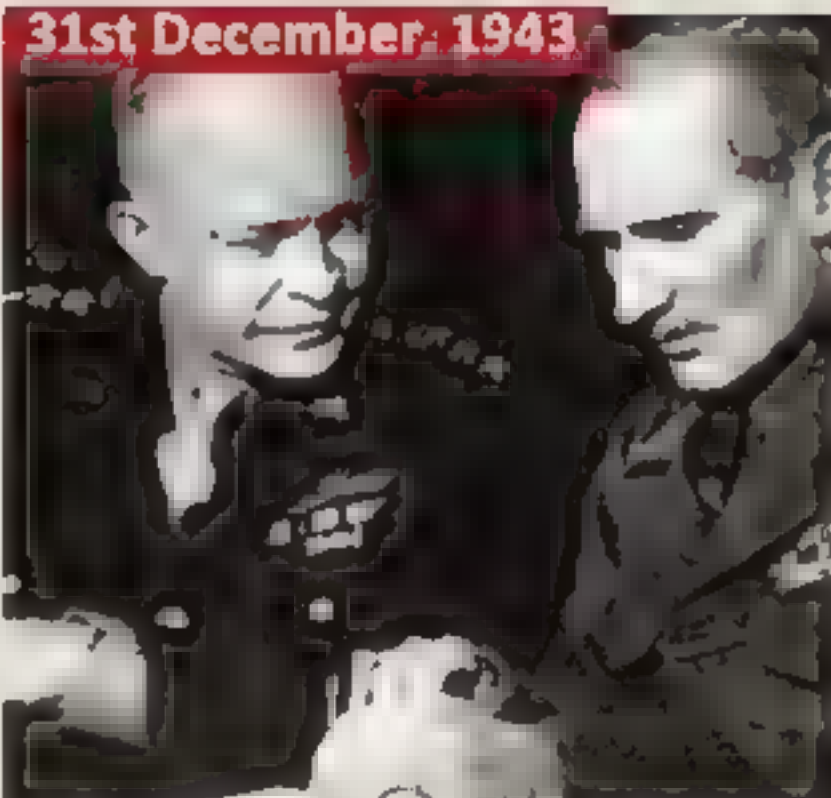




28th November, 1943

Churchill, Stalin and Roosevelt agree that Normandy will be invaded in May 1944. General Dwight D Eisenhower will be responsible for the invasion.

31st December, 1943



Eisenhower wants more soldiers in the invasion army. The new plan requires more preparation and the invasion is postponed to June 1944.

1st January, 1944

British divers creep ashore in Normandy and collect intelligence. They gather sand from the landing beaches that the Allies must then invade.

1944

The British launch an extensive diversion to cover the upcoming invasion. Among their tactics is to set up inflatable tanks that will trick German planes into thinking that the British are mustering across from the Calais coast.

UTAH BEACH

OBJECTIVE: to take and secure the beach, then advance through the flooded areas.

OUTCOME: three out of four of the US 4th Infantry Division's command ships were hit by mines and sunk. The bad weather meant that the landing craft hit the beach half a kilometre south of their intended destination. The target for the day, however, was very nearly reached.

OMAHA BEACH

OBJECTIVE: to occupy the villages of Colleville, St. Laurent and Vierville and take out the tricky German battery at Pointe-du-Hoc.

OUTCOME: the Allies underestimated Hitler's defences at Omaha, which was fortified with barbed wire, mines and a host of machine gun emplacements. The preliminary bombardment of the coast failed. The number of dead and wounded was huge in the first assault, but by the end of the day the Allies gained a foothold on the beach.

GOLD BEACH

OBJECTIVE: capture Bayeux, cross the main N-13 road, and take both the port of Arromanches and the German battery at Longues-sur-Mer.

OUTCOME: German artillery and infantry were destroyed before the landing, and British captured the beach and advanced 10 km inland. They did not meet the day's targets.

JUNO BEACH

OBJECTIVE: to take the beach and cut off the main road between Bayeux and Caen.

OUTCOME: German defences were weak and outnumbered six to one, but Canadian forces suffered heavy losses in the first assault wave. During the day they advanced further inland than any other division. They did not, however, meet their optimistic targets.

SWORD BEACH

OBJECTIVE: to invade the beach, continue through Ouistreham and capture both Caen and the airfield at Carpiquet.

OUTCOME: the British received support from the air, but were hindered by guns, mines and anti-tank defences. At the end of the day both Caen and the airfield remained in German hands.



FRANCE



ERWIN ROMMEL

was well known for his efforts in North Africa, where he became known as a master of desert war. In 1944, however, he was suspected of participating in a conspiracy against Hitler and forced to commit suicide.

- According to German propaganda, the coast of Western Europe was protected at the Atlantic Ocean by a gigantic concrete wall. In fact, much of the "wall" consisted of fortifications that could be easily overtaken. The coast of Normandy was dotted with bunkers equipped with machine guns.
- The Germans had only a few ships and submarines in the waters off Normandy. The bulk of the German navy was concentrated around Calais.
- Four divisions comprised the defence of Normandy. Two of the divisions consisted of teenagers, prisoners of war and soldiers who were not considered suitable for battle on the Eastern Front.
- Three armoured divisions were in reserve for the defence of Normandy, but only one was close enough to participate in the first day's fighting.

156,000 MEN CAPTURED THE BEACHES

Shortly after midnight, the first parachute troops were dropped over Normandy. A few hours later warships began a fierce bombardment of the beaches before the first soldiers landed at 06.30. Over the following hours, the Normandy coast became a flurry of activity with five major offensives striking concurrently, each with its own objective.

THE ENGLISH CHANNEL



THE FLEET WAS PARAMOUNT

Everything from modern warships to old scrap piles was used to secure the invasion.

- 1 **WARSHIPS** 'softened' the enemy with a massive bombardment and provided artillery support for troops.
- 2 **LANDING VESSELS** carried troops to the beaches where they streamed ashore via a ramp.
- 3 **THE LCT (LANDING CRAFT, TANK)** was over 30 m long and accompanied the landing vessels bringing essential tanks.
- 4 **THE LST (LANDING SHIP, TANK)** was over 100 m long and brought large numbers of tanks over the Channel.
- 5 **"CORNCOBS"** were old ships sunk to create "Gooseberry" breakwaters and shield artificial harbours.

AIR SUPPORT

Aircraft were used in several roles during the invasion.

- 1 **RECON PLANES** mapped Normandy's coast and designated German targets for bombing.
- 2 **TRANSPORT PLANES** carried paratroopers to landing zones where they were dropped.
- 3 **BOMBERS** targeted German positions further inland where the warships could not reach.
- 4 **FIGHTER PLANES** protected the bombers during raids and attacked targets such as German airfields.



Nearly 7,000 transport and naval ships, history's largest naval invasion, carried the invasion force across the English Channel.



Allied bombers attacked many targets including the German fortifications over the invasion beaches prior to troop landings.

DWIGHT D EISENHOWER

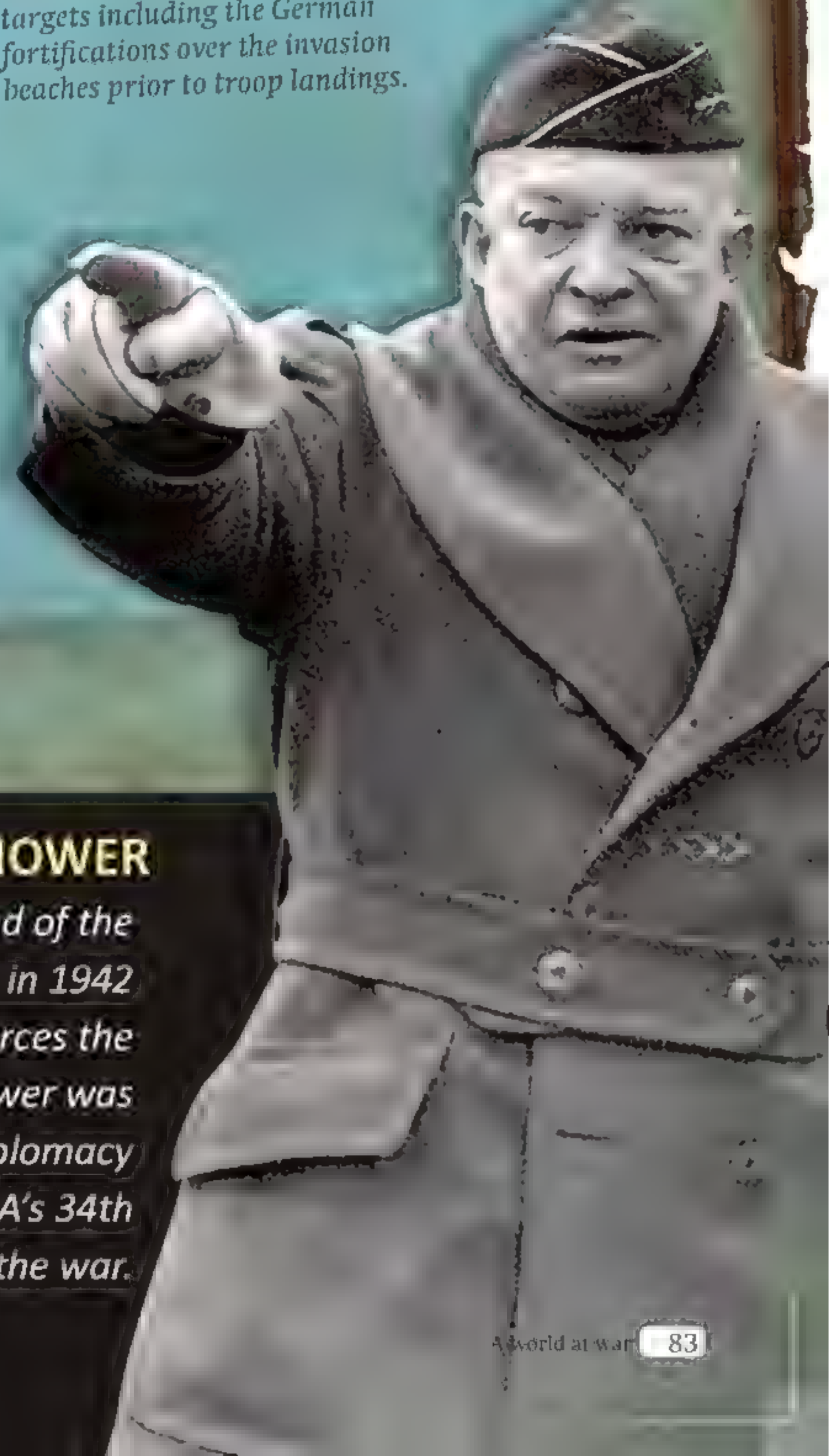
was given command of the US forces in Europe in 1942 and all Allied forces the following year. Eisenhower was well known for his diplomacy and became USA's 34th president after the war.

British, US and Canadian soldiers comprised the invasion force that landed on 6th June, 1944. Approximately 133,000 infantry were supplemented by 23,500 paratroopers.

The invasion fleet consisted of 6,939 ships, of which, 1,213 were warships. 4,126 vessels only provided transport.

11,590 US and British aircraft participated in the invasion. The Luftwaffe was so outmatched that Allied aircraft operated nearly unopposed.

The Allies worked closely with the French Resistance Movement, who, before the invasion, paralysed the Germans by sabotaging railways, telephone cables and electrical installations.



deception succeeded, historians have never concluded with certainty, yet it is certain that Hitler sent 25 divisions to the Balkans and 27 divisions to Denmark, Finland and Norway to defend the threat.

DECOY ARMY FOOLED THE GERMANS

In retrospect, historians assess that the Germans took the bait indicating a Calais invasion. The scale of the diversion tactic was fierce – for example the Allies created the ‘ghost army’ which was ‘training’ in Kent to the south-east of England, in order to entice the Germans to believe that the Allies were preparing to invade Calais. From a fake headquarters, the British sent misleading communications and set up additional buildings and dummy aircraft on fields near Kent. A whole fleet of fake invasion ships were staged in the ports and

the ‘vessels’ were moved around regularly, to fool German aircraft into believing that forces were amassing there.

The ghost army’s location convinced both Hitler and General Erwin Rommel, who were responsible for the defence of the French north coast, that the invasion would target Calais. So they sent large forces to Calais, while Normandy – just as the Allies’ planned – was pushed to the background and not on anyone’s radar.

In the weeks leading up to the invasion, the Allies secured Hitler’s and Rommel’s total deception by bombing the Calais coast far more vigorously than Normandy.

One week before the final invasion date, all facilities in southern England were closed off and public transportation to the region halted. The whole of southern England was wound up like a spring waiting to go off.

The night before the invasion, the diversion tactics continued before, during and after the landing. For example, specially trained pilots dropped strips of metallic foil over the ocean at Calais, which German radar screens picked up as ships. The ruse convinced the Germans that a large invasion fleet headed to Calais.

In the hours following the Normandy invasion, the Allies spoon-fed the Germans apparently secret information indicating that the actual invasion was merely an

impressive distraction prior to the fictitious invasion of Calais.

STORM OVER THE CHANNEL

Despite the thorough preparations, the Allies had no control over the weather. In early June, meteorologists warned of storms over the English Channel, and the invasion date was tentatively moved from the 5th to the 6th. However, preparing the huge invasion force was progressing as planned and on 3rd June, 130,000 soldiers were ready for departure aboard history’s greatest armada. Had the weather not improved, the invasion could only be carried out 14 days later, and

Eisenhower feared that a cancellation would severely affect the morale of the men who were getting ready to leave.

The stormy weather also raged over Normandy, where the Germans called back their boats to land. German meteorologists estimated that the danger of an invasion was minimal during the harsh weather conditions, and Rommel relied so much on them that he drove to Berlin to celebrate his wife’s birthday. A large group of officers took the opportunity to participate in an exercise at Brittany – an exercise which simulated an invasion of Normandy.

While the Germans momentarily loosened their grip of the Normandy coast, Eisenhower was plotting through the night of the 4th of June. Britain’s chief meteorologist – having far greater weather data available than his German colleague – believed the storm would weaken that afternoon, enough to allow a channel crossing – albeit an extremely risky one. Eisenhower considered the risk of failure but soon gave the green light to go forward.

ACCIDENTS CONFUSED THE GERMANS

The German soldiers could not believe their eyes as the first ships appeared in their binoculars. The defenders let their guard down in the stormy weather and only a few even had a clue about the true extent of the invasion. The attack was spread over a huge area and over multiple fronts.

The Americans face especially severe resistance at Omaha Beach. In just a few hours, 5,000 soldiers are killed or wounded.

5th June, 1944

The English Channel is ravaged by a violent storm. The invasion is scheduled for 5th June, but bad weather forces Eisenhower to postpone it until the next day.

6th June, 1944

Dummies with parachutes are dropped over northern France meant to fool the Germans into believing that invasion will take place further north at Calais.

6th June, 1944

By the evening of 6th June, the Allied troops are in control of the five selected beaches and have begun to move inland into the country.

9th June, 1944

Two artificial ports are being built off the coast. The concrete elements were cast in England and towed across the channel by cargo ships.

DISPOSABLE AIRCRAFT SECURED THE LANDING

The invasion of Normandy called for Allies to land equipment and large groups of soldiers behind German lines. The answer was the single-use Airspeed Horsa – the Allies' most successful glider.

- 1** The plane was propelled by a line attached to the nose. Bombers towed the Horsa to the landing area where it was released.
- 2** The glider was almost entirely made of wood, yet it proved both robust and manoeuvrable.
- 3** The Horsa had landing wheels, but during use the wheels were dropped after take-off. The craft landed by way of a reinforced nose and bottom.
- 4** Large flaps on the wings made it possible to slow down abruptly and land even in small clearings.
- 5** After landing, soldiers had to quickly exit. So the fuselage, the aircraft's body, was designed with a detachable tail section that allowed for rapid unloading.
- 6** Most glider pilots were regular soldiers with limited flight training. After landing, the pilots participated in the mission on an equal footing with the crew.
- 7** The aircraft's door could fold downward to be used as a ramp when loading the plane.



The glider could be split open so that the vessel could be emptied quickly of its passengers.



HORSA IN BRIEF

Designed: 1941
Units made: over 3,600
Length: 20.42 m
Height: 5.94 m
Wingspan: 26.82 m
Weight: 3,797 kg
Top Speed: 160 km/h
Crew: max. 30

23,500 British and American soldiers were parachuted behind the German lines during the night to secure the flanks of the beaches and sabotage German positions.

The bad weather, however, diverted most of the paratroopers away from their targets and many endured a chaotic night trying both to find their peers and to avoid being discovered by German patrols.

"We were badly scattered. I joined up with Corporal Allison and we eventually made our way out of the marshes. It was dark and we were lost. However, shells fired from the battleships were constantly going overhead and this helped us work out where the coast was. At daylight, dodging German troops, we headed toward the sea. The naval bombardment was terrific and we assumed our troops must have landed on the beaches," recalled Staff Sgt Roy Burger.

Fortunately, the scattered air drops helped confuse the Germans even more, whose command centre spent many of the day's first, precious hours making sense of

the numerous reports coming in over the entire region.

SOLDIERS DROWNED

While German troops were chasing Allied paratroopers, the first landing vessels approached Normandy. The squat metal boats heaved dangerously over the waves. The boats reeked of vomit. Onboard, soldiers prayed out loud, but otherwise the only sounds were the violent waves and the din of battle coming from the French coast which was rapidly approaching.

Across the fleet German shells struck the boats sending wooden splinters, metal and body parts over the young, inexperienced soldiers. Before the men could process the situation, they were commanded to prepare for landing. As the forward ramp dropped down the first peppering from German machine guns hammered through the craft. The front rows of soldiers dropped immediately. US Private Harold Baumgarten jumped into the

EYEWITNESS

ROBERT EDLIN/On the landing

SHOT DOWN ON THE BEACH



When I was about twenty yards from the seaway I was hit by what I assume was a sniper bullet. It shattered and broke my right leg. I thought, well, I've got a Purple Heart [American medal]. I fell, and as I did, it was like a searing hot poker rammed into my leg. My rifle fell ten feet or so in front of me. I crawled forward to get to it, picked it up, and as I rose on my left leg, another burst of I think machine gun fire tore the muscles out of that leg, knocking me down again.

99

14th June, 1944

French general Charles de Gaulle arrives at the liberated town of Bayeux to establish a temporary French government.

26th June 1944

The Allies conquer the important city of Cherbourg. The city's deep-water port makes it possible to speed up the transport of supplies.

30th June, 1944

Operation Neptune – the Allied Invasion of Normandy – officially ends. The Allies have now gained a foothold in France.



1st July, 1944

In just over three weeks, Allied ships have transported 850,000 men to Normandy. That number later swells to around four million.

water, stained red by his companions' blood. Baumgarten instinctively pulled himself together just as a projectile struck his helmet. Around him he could see that even the equipment they carried was against them.

"Some of the boys who got out of the boat without being hit were pulled down into the water by their life jackets and heavy equipment. The life jackets were worthless. The water was deeper than the height of the average man... and [the shorter men] drowned... German snipers also took down many of them".

The sandy beach was strewn with the dead and wounded. Several lost their limbs while fighting their way to the concrete fortifications on the beach.

William Hutch was one of the few survivors of his company and later wrote to his family:

"It was terrible. Dying people everywhere – the wounded were unable to move and drowned in the rising tide."

13,000 BOMBS MISS TARGET

Most brutal were the conditions at Omaha Beach, where the Allies lost more soldiers than on the other four beaches together. One of the reasons was that the German bunkers at Omaha, unlike elsewhere, were largely undamaged because almost none of the Allied 13,000 explosives hit their targets. Besides, the German positions there had just been reinforced with hardened, combat veterans who had participated in the ruthless battles on the Eastern Front.

The German posts rimmed the top of a 50-metre-high cliff with a clear view of the beach. From here, the defenders could shoot down at the US troops as they emerged gasping from the water.

The Germans were given a helping hand by the US commanders who loaded their Omaha soldiers into shore landing vessels from 17 km off the coast – on other beaches, landing troops embarked only 10 km or less from shore. This meant that after three hours on the sea, a majority of the Omaha soldiers were already exhausted or violently seasick due to the rough voyage. Additionally, the speciality tanks

In about three weeks, the Allies transport 148,000 vehicles and 570,000 tonnes of supplies across the English Channel.

that would support the strike force on Omaha beach were launched early and sunk in the water. Just two of 32 Sherman amphibian tanks reached the shore.

The landing boats, upon arriving, landed far from the intended areas. This resulted in chaotic scenes where each soldier desperately had to fight for his own life.

"Within 10 minutes of dropping their ramps, the first wave was sluggish, unmanageable and almost paralysed. All officers and sergeants had been killed or wounded. It was a struggle for survival and rescue," described the official report of the battle which was so violent that the commanding General Omar Bradley had contemplated aborting the invasion of the beach, which was called "Bloody Omaha" by the US soldiers.

Fortunately for the Americans, cobbled together teams of soldiers formed small, improvised combat units that pushed through the German lines.

FORWARD PUSH FROM NORMANDY

Despite the bloody scenes at Omaha Beach, the Normandy invasion was almost perfect and at the end of the day, the Allies landed over 150,000 troops ashore, capturing all five beaches. Their next task was to land as many soldiers as possible and establish an effective bridgehead. In the first week after the invasion, 330,000 soldiers and 50,000 vehicles were sent to Normandy. And by late June, the Allies had incredibly landed 500,000 men, 148,000 vehicles and 570,000 tonnes of supplies.

Although Allied aircraft held control of the skies, the Germans on the ground managed to keep the Allies boxed in and confined to their fortifications in Normandy. The turning point would be the so-called "Operation Cobra", which began on 25th July. While the British and Canadian forces were assaulting the German forces in the town of Caen, US troops embarked on an offensive that broke through German lines and pushed into Brittany to the west, chasing the fleeing Nazi troops.

A month later on 30th August, Hitler's troops were forced over the River Seine with the Allies on their heels. And in September, the first British and US forces reached the German-French border from where the road to Berlin was finally open. ■

The British were armed with knives for close combat.

25th June, 1944

The Allies began a series of offensives into France from the five beaches. Just three days later, troops break through the German lines.

12th August, 1944

60,000 German soldiers are encircled at the town of Falaise. Allied forces kill 10,000 and capture the rest. The road is now paved to Paris and the German border beyond.

15th August, 1944

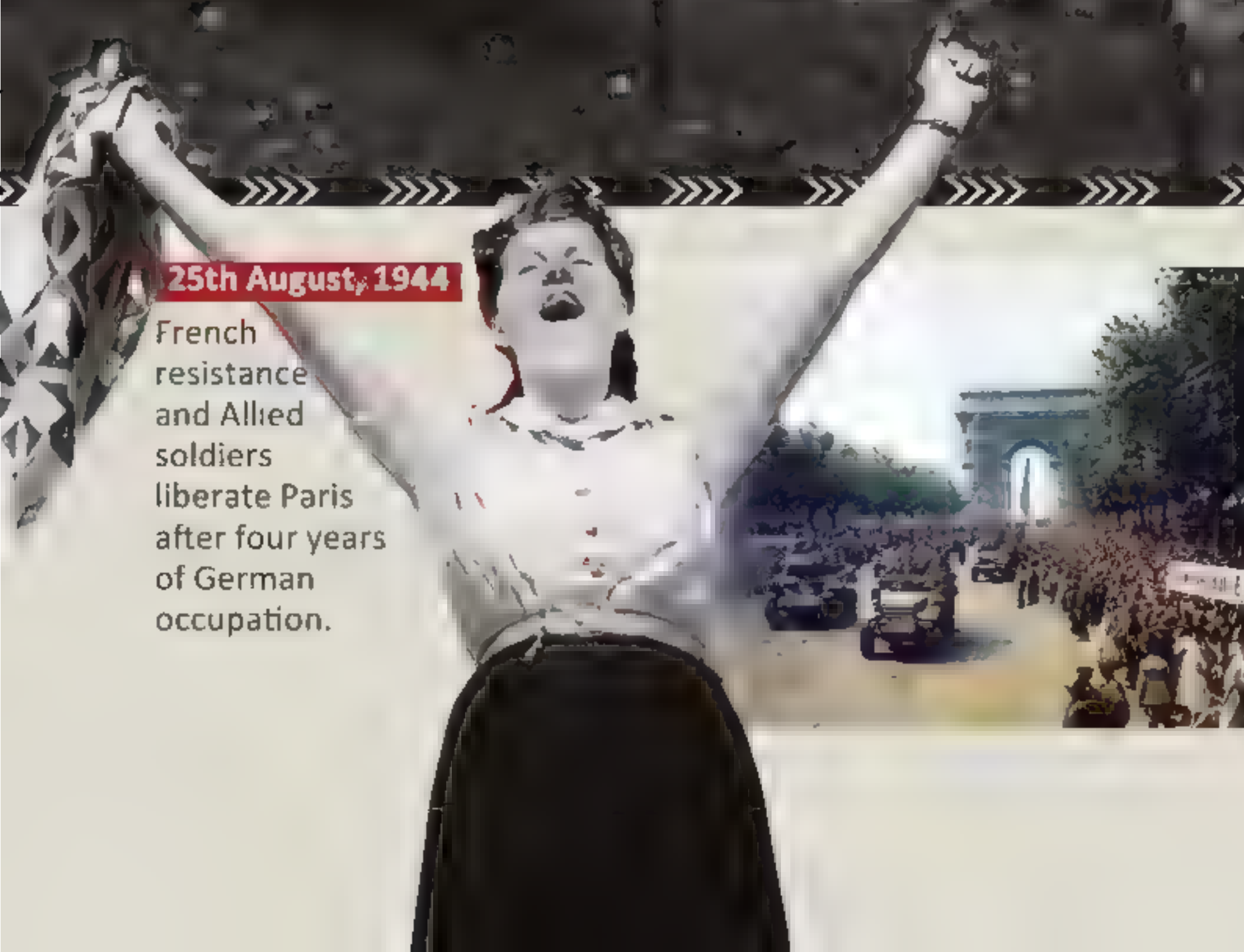
Allied soldiers land ashore near Saint-Tropez and begin the invasion of southern France. In just four weeks, most of France is liberated.

“By late June, the Allies have landed 500,000 men, 148,000 vehicles and 570,000 tonnes of supplies”



25th August, 1944

French resistance and Allied soldiers liberate Paris after four years of German occupation.



30th August, 1944

After fearsome battles, the Germans are pushed back over the River Seine. Operation Overlord – the invasion of Normandy – officially ends.



21st October, 1944

After nearly three weeks of intense fighting, US troops capture Aachen. It becomes the first German city to fall into the hands of the Allies.



THE CHICAGO DAILY NEWS

TRY TO KILL HITLER

Garges Fly as Chiefs
No. 2 Spot

Democratic Convention
Roosevelt Possible
End Tonight

Convention Program
Evening Session

U.S. CHIEFS 7 CHIEFS
POLE JAPAN
NEW ORLEANS



THE ATTACK ON HITLER

1944



On a hot summer day in 1944, Hitler's conference room explodes into a blaze of fire, smoke and lethal wood splinters.

A group of officers have attempted to kill the Führer to stop the war and save

Germany. The next 12 hours will be a race against time as the rebels try to seize government control and disarm those loyal to Hitler in the SS and Gestapo.

1944

20th July A bomb explodes in the Wolf's Lair. Hitler survives.

20th July Officers stage a coup d'état in Berlin.

20th July Propaganda Minister Joseph Goebbels heads off the coup.

20th July Ten-man firing squad executes Stauffenberg shortly after midnight for his involvement.

21st July Henning von Tresckow, the coup's drafter, commits suicide by hand grenade.

Thursday, 20th July, 1944, the heat was already unbearable by early morning as Colonel Claus von Stauffenberg arrived at Wolf's Lair, one of several of Hitler's headquarters. Most people in the bunker, which was Adolf Hitler's headquarters in East Prussia, had been complaining about the oppressive heat which had caused sweat to stain their grey-green military uniforms.

To reach Wolf's Lair's heart, Stauffenberg and his aide-de-camp, Werner von Haeften, had to drive a rugged vehicle over bumpy dirt roads through the densely forested Masurian woods which perfectly hid the Führer's favourite residence. Large swathes of the forest were covered with mines and a ten-kilometre-long barbed wire fence barred access except through the main road. Three times on the short journey, Stauffenberg had been stopped to show his credentials, proving his right to unobstructed passage. When he finally arrived, inside Wolf's Lair, he was primed to complete his mission.

Stauffenberg had officially journeyed to report on the situation on the Eastern Front, but inside the two briefcases brought by Werner von Haeften and himself, there were no maps or records. Instead, they were packed with two kilograms of explosives that would put an end to the tyrannical Nazi leadership of Germany. Stauffenberg,

who lost one eye and a hand fighting in North Africa, had a clear objective: today, Hitler would die.

ONE LEADER IN THE WAY OF PEACE

Already two years beforehand, Stauffenberg – like so many others in the officers' corps – had been ashamed of the Nazis' brutal tactics on the Eastern Front and had lost confidence in the Führer.

Stauffenberg declared to a close friend in the summer of 1942, "They are shooting Jews in masses. These crimes must not be

"They are shooting Jews in masses. These crimes must not be allowed to continue," declared Stauffenberg.

allowed to continue." The extermination of the Jews particularly, had lit the fire of resistance in the colonel, who had also witnessed the failings of the German war machine, especially on the Eastern Front.

Stauffenberg personally experienced their defeat in North Africa, where in April

1943 he was severely injured during a strafing attack. It was there that he lost his left eye and his right hand. The injuries forced Stauffenberg away from the front and into an administrative post in Berlin, where he met the two conspirators, Major General Henning von Tresckow and General Friedrich Olbricht, who together planned to overthrow the Führer. Both had realised that the war could no longer be won and the three soon came to agree that for a peace treaty to be signed with the West, Hitler would have to be removed from power.

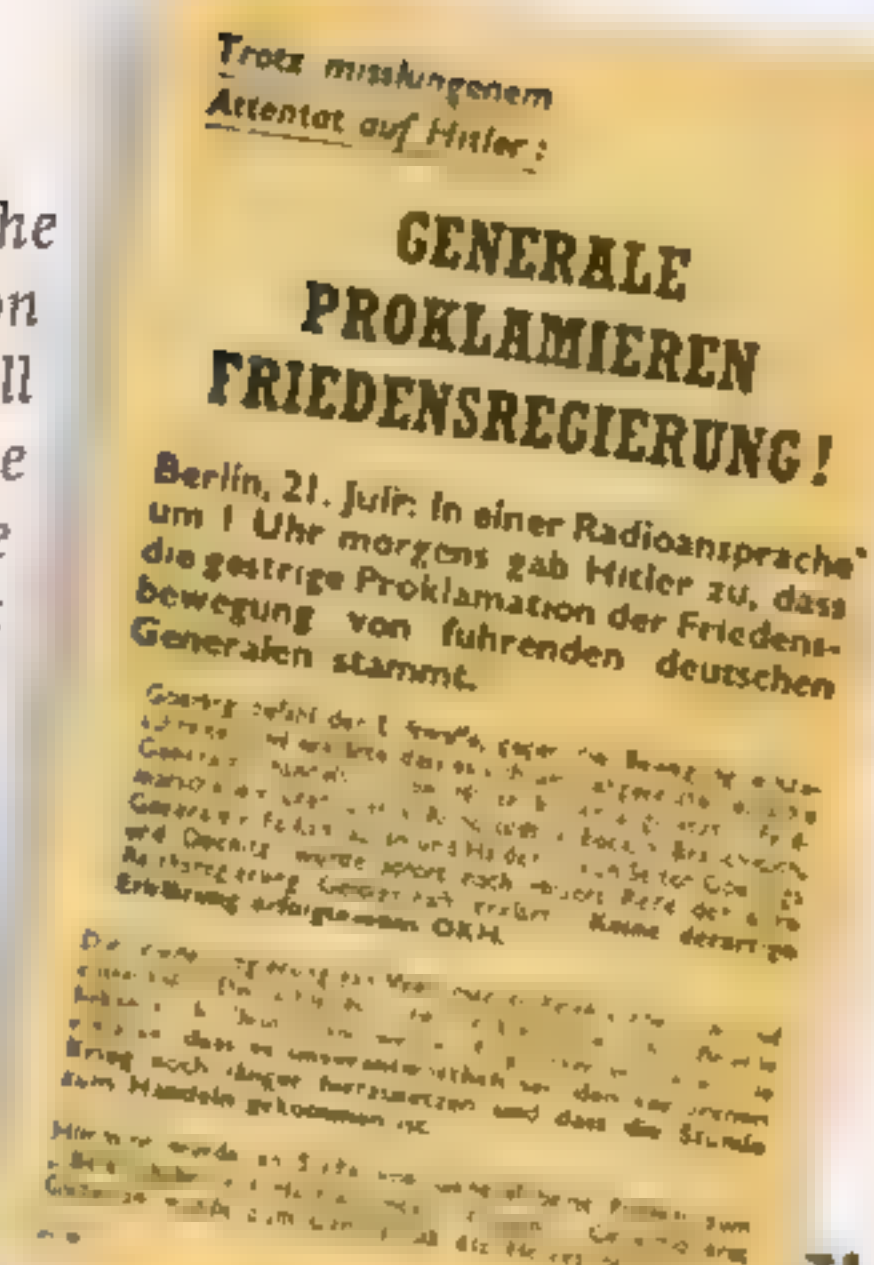
In 1943 and 1944, the group tried to kill Hitler several times, each attempt in vain. Yet in June 1944, Stauffenberg was fatefully employed as a staff officer to the headquarters of the reserve army under General Friedrich Fromm. The position secured, for the revolutionary, personal access to Hitler. For the officers of the resistance movement the appointment was an opportunity, and Stauffenberg happily agreed to assume the role of assassin.

Stauffenberg explained before the attack, "It is now time that something was done. But the man who has the courage to do something must do it in the knowledge that he will go down in German history as a traitor. If he does not do it, however, he will be a traitor to his own conscience."

PRIMING THE EXPLOSIVES

At Wolf's Lair, just before noon on 20th July, Stauffenberg got an unpleasant surprise. Hitler's closest military adviser, Field Marshal Wilhelm Keitel, abruptly

The day after the assassination attempt chaos still prevails. The Resistance Movement distributes pamphlets in Berlin, where they promote their new "peace government".



An officer shows the visible result of the bombing at Wolf's Lair: Adolf Hitler's shredded trousers.

approached the newly arrived colonel. The 61-year-old Keitel was notorious for his extreme loyalty to the Führer – even his tight moustache and hairstyle were reminiscent of Adolf Hitler's.

"The Führer has changed the timetable," said Keitel, who was responsible for the logistics of the day's meeting. The Italian fascist leader Benito Mussolini would arrive at Wolf's Lair at 14.30, and so the meeting where Stauffenberg was set to present his report was moved up half an hour to 12.30, Keitel explained. The schedule change meant that Stauffenberg alarmingly only had a half hour to prime the explosive.

Under intense time pressure, Stauffenberg made a quick decision and asked Keitel to change his sweat-stained shirt somewhere private.

THE BOMB IS MADE READY

Keitel's assistant lead Stauffenberg and von Haeften to a side room and left the two men to their personal affairs. But as soon as the door closed, Stauffenberg began preparations to make the bombs ready. The one-armed colonel inserted a pencil detonator into the explosive and used specially adapted pliers to crush its end freeing the acid inside to slowly begin dissolving the wire holding back the firing pin. With everything prepared and ready, within ten minutes, the bomb would go off.

EYEWITNESS


HANS BERND GISEVIUS/At Bendlerblock

STAUFFENBERG PRESSED ON



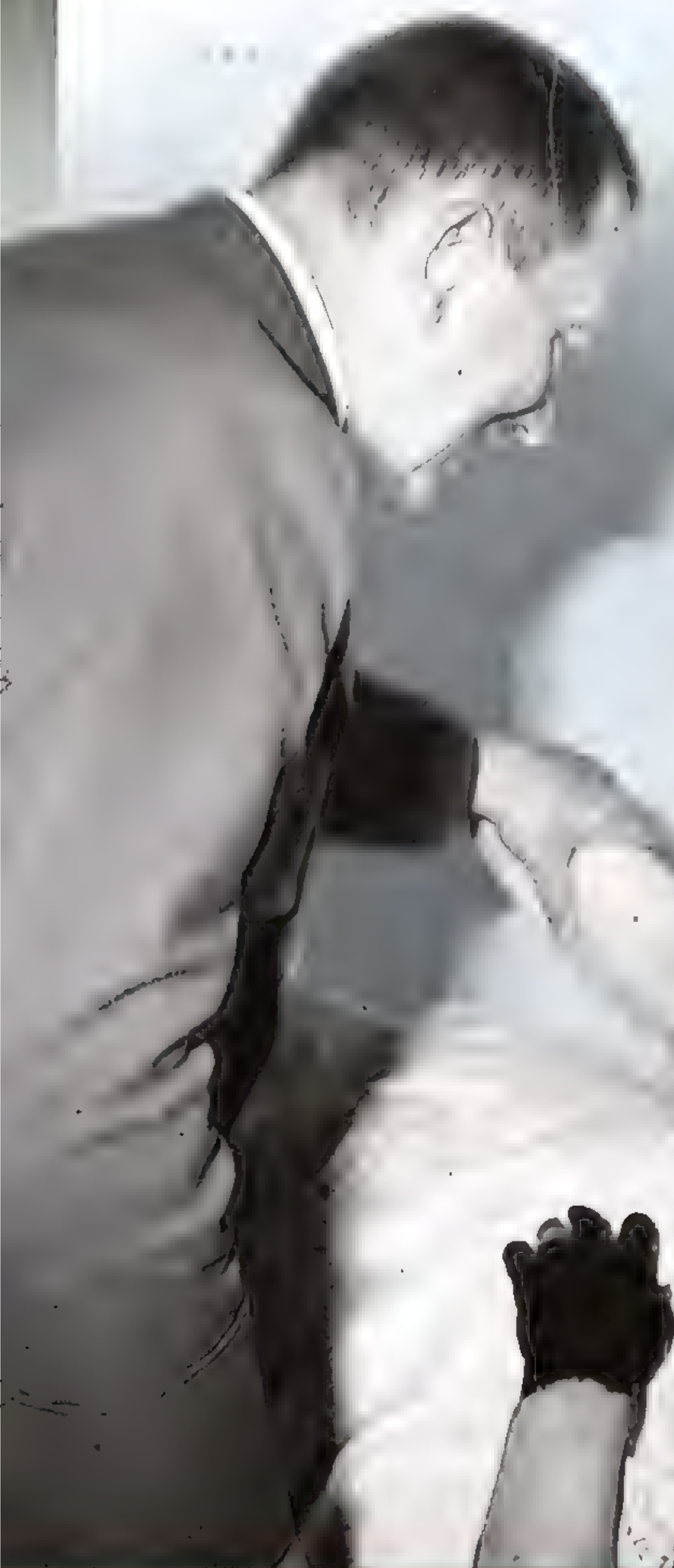
"At our end of the wire Stauffenberg repeated the same refrain: 'Hitler is dead... Yes, he is definitely dead... Yes, here the action is in full swing'...

One moment his voice was firm and commanding, the next friendly and persuasive, the next imploring. 'You must hold firm... I'm depending on you... Please do not disappoint me...' Stauffenberg was the only one in control of the situation."



On 15th July, 1944, an unsuspecting Hitler greets officials, among them Stauffenberg (left), outside Wolf's Lair. Five days later, the Colonel attempted to kill the Führer.

“ The schedule change meant that Stauffenberg alarmingly only had a half hour to prime the explosives ”



In the midst of their preparations a guard knocked and opened the door informing them that the meeting was about to begin. After the close call, the two assassins quickly left for the meeting yet only one of the detonators had been primed. Only half of the intended explosives ended up in Stauffenberg's briefcase while the other sat harmless in von Haefen's.

HITLER SAVED BY OPEN WINDOWS

Due to construction in the Führer's bunker, the meeting had been moved to a fragile wooden hut nearby with weak walls that might allow the explosive force of the bomb out into the open rather than reinforcing the blast. The briefing was already underway when Stauffenberg arrived, and the colonel noted with dismay that all the windows were open because of the heat which would further reduce the impact of the explosion.

The bomb was placed by one of the massive wooden legs that supported the oak table. The 24 officials assembled around the table were all concerned with the report that Mussolini was arriving when Stauffenberg seized his chance to leave the room.

He muttered a lie
that he had to
take an

urgent phone call and quickly walked out of the room continuing on another 250 metres to the place where von Haefen was waiting in a vehicle. Stauffenberg, still filled with anxiety, lit a cigarette and after a few seconds heard the sound of an enormous explosion. The explosion was a success, Stauffenberg and von Haefen, jumped into the car and set off to escape Wolf's Lair.

As the vehicle turned around a corner, the destroyed hut came into view and Stauffenberg was filled with the sense of victory. Flames and black smoke poured out of the interior of the building, with its ceiling collapsed, the windows shattered and charred pieces of paper and insulation rained down.

With his heart pounding in his chest, Stauffenberg spotted two soldiers carrying a man away. The person was completely motionless on the stretcher and over the body was Hitler's own leather jacket. The colonel had no doubt that the Führer was dead. It was now time to launch the next phase of the plan.

DEFEAT OF THE PARTY WAS CRUCIAL

The resistance led by Tresckow, Olbricht and Stauffenberg had a year before the attack to develop a detailed plan. They were well aware that Hitler's death would not end the days of a Nazi Germany. The entire Nazi party would have to die along with its leader. The conspirators carefully

Just a few weeks after the attempt on his life an enthusiastic Hitler visits wounded soldiers on the Eastern Front.

OFFICERS WANTED HITLER DEAD

High-ranking officers were behind the attack on the Führer on 20th July, 1944. They sought to free Germany from Hitler's ruthless grip and to seek peace with the West, but their plans failed and they paid with their lives.



**HENNING VON
TRESCKOW**

The Kingpin

■ Tresckow was the principal mastermind behind the assassination. He was on the Eastern Front during the attempted murder, and when he heard about the failure he killed himself with a hand grenade.



FRIEDRICH OLBRICHT

The Planner

■ The son of a mathematics professor Olbricht naturally took responsibility for preparation of the complexities of Operation Valkyrie. Along with Ludwig Beck, Olbricht devised plans for how the plotters could secure control over the army, SS and ministries in the days after the attack.



ERICH FELLGIEBEL

The Inside Man

■ Fellgiebel would, from his position in Wolf's Lair, destroy all communication to and from the Führer's headquarters. For some reason his mission failed. Arrested on 21st July and executed on 4th September, 1944.

planned an operation, code-named "Valkyrie". First, loyal officers would need to take command of the reserve army that defended the German interior. Then, soldiers would infiltrate the state radio and spread a message that a "treacherous group of party leaders" was behind Hitler's death and attempting to take power.

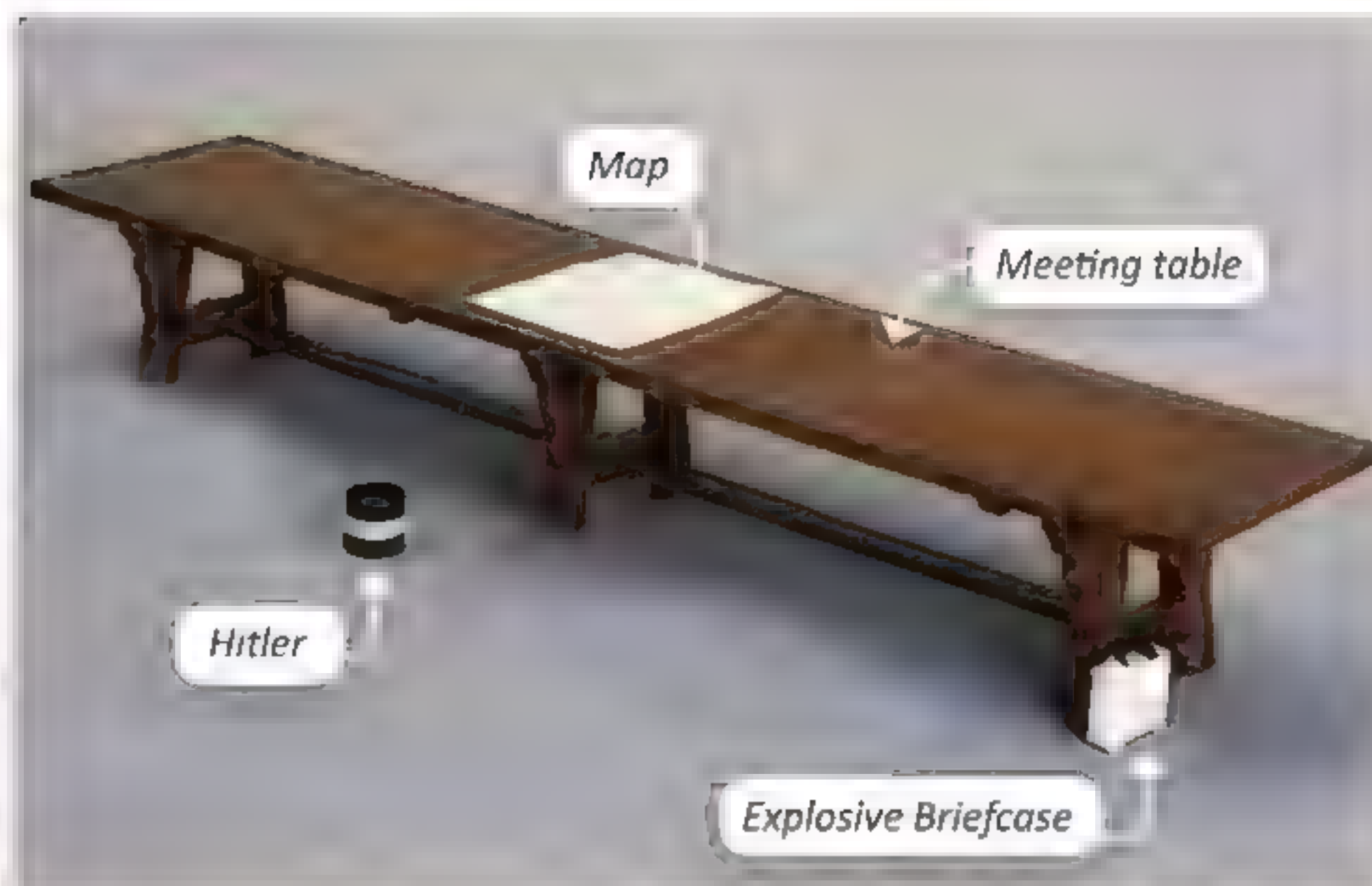
The message would blame the Nazi party for the assassination staging the reserve army as the true guardians of Germany. This way, the conspirators would be able to arrest powerful Nazi leaders such as Goebbels, Himmler and Göring. Finally, the conspirators would have to pray that the SS troops and officers still faithful to the Führer would yield.

STAUFFENBERG ESCAPED TO BERLIN

After a short drive, Stauffenberg arrived at the Rastenburg airport at 18.00 some ten kilometres from the Wolf's Lair. Along with von Haeften he boarded a small propeller plane that would fly them to Berlin, where Olbricht and the other co-conspirators would have already launched Operation Valkyrie.

Stauffenberg was confident that his ally at Wolf's Lair, Erich Fellgiebel, had already phoned to convey the good news about Hitler's death so that the real action could begin.

But things were not quite as Stauffenberg believed. When the explosion in the hut where Hitler's conference took place Erich Fellgiebel hurried there to confirm Hitler's death. With great satisfaction he saw the flames rise from the building. The scene echoed with the cries of the wounded and a terrifying sight met Fellgiebel's gaze when an officer frantically escaped the blaze with hair on fire. Yet through the smoke and destruction, Fellgiebel saw Hitler beneath the oak slab of the now destroyed table. The Führer – just seconds before the bomb went



The meeting table at Wolf's Lair was made of solid oak. Unfortunately, Stauffenberg placed the briefcase of explosives behind one of the stout legs which blocked the bomb's kill area. At the moment of detonation, Hitler was leaning over the table studying a battle map. This position shielded Hitler's upper body from the explosion.

off – had leaned forward over the table to closely study a document.

The tabletop had miraculously spared Hitler from death. The Austrian Nazi leader had a horrible ringing in his ears as he moved out of the burning hut but he escaped with only minor injuries. A

frightened Fellgiebel watched through his small round glasses, the Führer moving out of the rubble on his own strength.

Disappointed, the Wolf's Lair informant went back to his room where he contacted the resistance in Berlin.

"Something awful has happened! The Führer lives!"

Fellgiebel called through the line.

Fellgiebel knew that according to plan, he would also need to shut down all communication from Wolf's Lair. This point was essential in the plan because the lack of contact could cause even loyal troops to believe that the Führer was dead. Meanwhile, the conspirators in Berlin could control which messages reached the German people and the army. Unfortunately, Fellgiebel never destroyed the radio communications from Wolf's

Lair, possibly out of fear of reprisal since Hitler had survived.

REBEL OFFICERS HESITATED

In Berlin, the rebel group was paralysed. From Wolf's Lair, Fellgiebel had insisted that even if the assassination failed, the coup must be carried out at all costs. Yet at Bendlerblock, where the rebel officers were headquartered, General Olbricht hesitated to put Valkyrie in motion. He was unsure of what had actually happened in Wolf's Lair. Had there been an explosion or had Stauffenberg been discovered?

It wasn't until 15.30 that the general's doubts were silenced as Stauffenberg and von Haeften landed outside of Berlin

Immediately Stauffenberg made contact with Olbricht and was shocked to learn the operation had not yet been put into motion. He assured Olbricht that whatever the general may have heard, the Führer was dead. Stauffenberg had personally seen the lifeless body on a stretcher. An hour later, Stauffenberg reached Bendlerblock.

He had expected to see loyal soldiers and tanks in the streets, but the capital was

1 kg
of explosives
were contained
in each of the
two bombs
brought by
Stauffenberg.



LUDWIG BECK

Leader

Retired in 1938 as Chief-of-Staff of the Army when he disagreed with Hitler's foreign policy. Beck quickly became a major leader of the assassination plot and would have served as head of state after Hitler's death. He was shot at midnight on 20th July.



CLAUS VON STAUFFENBERG

Assassin

From 1943 on, became the central actor in the officers' resistance circle. Stauffenberg despised the Nazi racial cleansing and for one year tried to persuade others to murder Hitler.

When Stauffenberg unexpectedly became part of the Führer's inner circle, he undertook the task of killing Hitler. On 15th July, 1944, he planned to kill the Führer with explosives but the attempt was delayed until five days later. He was executed on 21st July, 1944.



WERNER VON HAEFTEN

Assistant

Stauffenberg's loyal assistant agreed in early 1944, to blow himself and Hitler up without Stauffenberg. But his brother talked him out of the suicide mission and instead von Haeften went together with Stauffenberg to execute the attack on 20th July. He was killed the same night.

MEANWHILE IN BELARUS

NEWS FROM THE EASTERN FRONT

Two days after the Wolf's Lair assassination attempt the Russians opened a gigantic offensive. To withstand the pressure to the west, Hitler sends units to France and directs units to the south of the Soviets. So the Nazis are without vital combat troops when the Red Army attacks in Belarus. After just ten days of battle, Stalin's troops roll over the old Polish border threatening Germany's borders for the first time.



quiet. So in light of this the colonel pleaded for the coup to continue.

Only then did the resistance officers activate Operation Valkyrie, and within a few hours, police officers and soldiers had surrounded the government district and entered the most important Nazi leaders' residences including that of Propaganda Minister Joseph Goebbels.

Nevertheless, the morale of the group of conspirators was low. The retired general Ludwig Beck, who was appointed to take over leadership of Germany after the coup, was seriously concerned. The seasoned veteran, who always carried a thoughtful disposition, had begun to doubt whether Operation Valkyrie would succeed if Hitler really was alive.

THE COUP D'ÉTAT STRIKES

General Beck soon had his fears confirmed. At about 18.25, Propaganda Minister Joseph Goebbels' voice roared over the radio declaring that a bomb attack had

targeted the Führer's life but he suffered no harm except light burns and minor injuries.

Despite the propaganda minister's words, the coup continued. And at 19.00 a military unit drove up to the front of Goebbels' apartment. Led by the 31-year-old Nazi Major Otto Ernst Remer, the unit entered the residence to arrest Goebbels for his apparent complicity in the attempt on Hitler's life.

The young major, after Goebbels' radio address, was unsure of who he should fight for. To convince the soldier Goebbels asked for a single phone call. The minister, with his thin body and a perpetually annoyed facial expression, contacted Wolf's Lair and handed the phone to Remer. This was the moment that Fellgiebel's failure to cut-off the communication lines proved fatal.

At the other end of the line was a familiar voice: "Major Remer, can you hear

me, do you recognise my voice?" spoke the Führer's in his characteristic staccato rhythm. "Jawohl, mein Führer", promptly replied the surprised Remer, who was no longer in doubt – as it had become apparent that Hitler was truly alive, he and his troops simply must fight for the Führer and help to overthrow the dissident traitors.

Hitler assigned the young major a massive task: Remer was given complete authority to quell the uprising. The major immediately rescinded the blockade of the government district.

In a short while, he rallied complete control of the forces that Stauffenberg had sent out to the city centre. His next stop was to arrest the leaders of the coup d'état.

THE CONSPIRATORS WERE EXECUTED

The darkness had long spread over Berlin, as soldiers loyal to Hitler captured the Bendlerblock headquarters. With all of the frenzied activity, the city was in an uproar.

"For or against the Führer?" The soldiers shouted as they walked around with raised weapons arresting any traitors. Olbricht, Beck and Stauffenberg were in

one of Bendlerblock's many offices, when a group of soldiers stormed in led by General Friedrich Fromm. For a brief moment, the great general stood in the doorway solemnly gazing at the conspirators before he commanded the soldiers to disarm the group.

A resolute Fromm ordered a lieutenant to immediately take a few of the men and carry out the judgement on them down in the courtyard after he declared that Stauffenberg, Olbricht and Beck were to be sentenced to death.

Outside, the military vehicles' spotlights bathed the Bendlerblock's courtyard in bright light as the convicted officers stepped out of the stairwell. In the middle of the courtyard, a ten-rifleman execution squad awaited.

As the first to die, General Olbricht was led to a sandbag fortification. A few seconds later, shots sounded from the ten rifles and Olbricht fell to the ground.

Stauffenberg was given the dubious honour of moving to the sandbags next, while the firing squad's soldiers reloaded their rifles. With the patch covering one eye and one arm hanging down his side, he prepared to meet his death.

When the firing squad was ready to fire, Stauffenberg cried out in the courtyard, "Long live the secret Germany!"

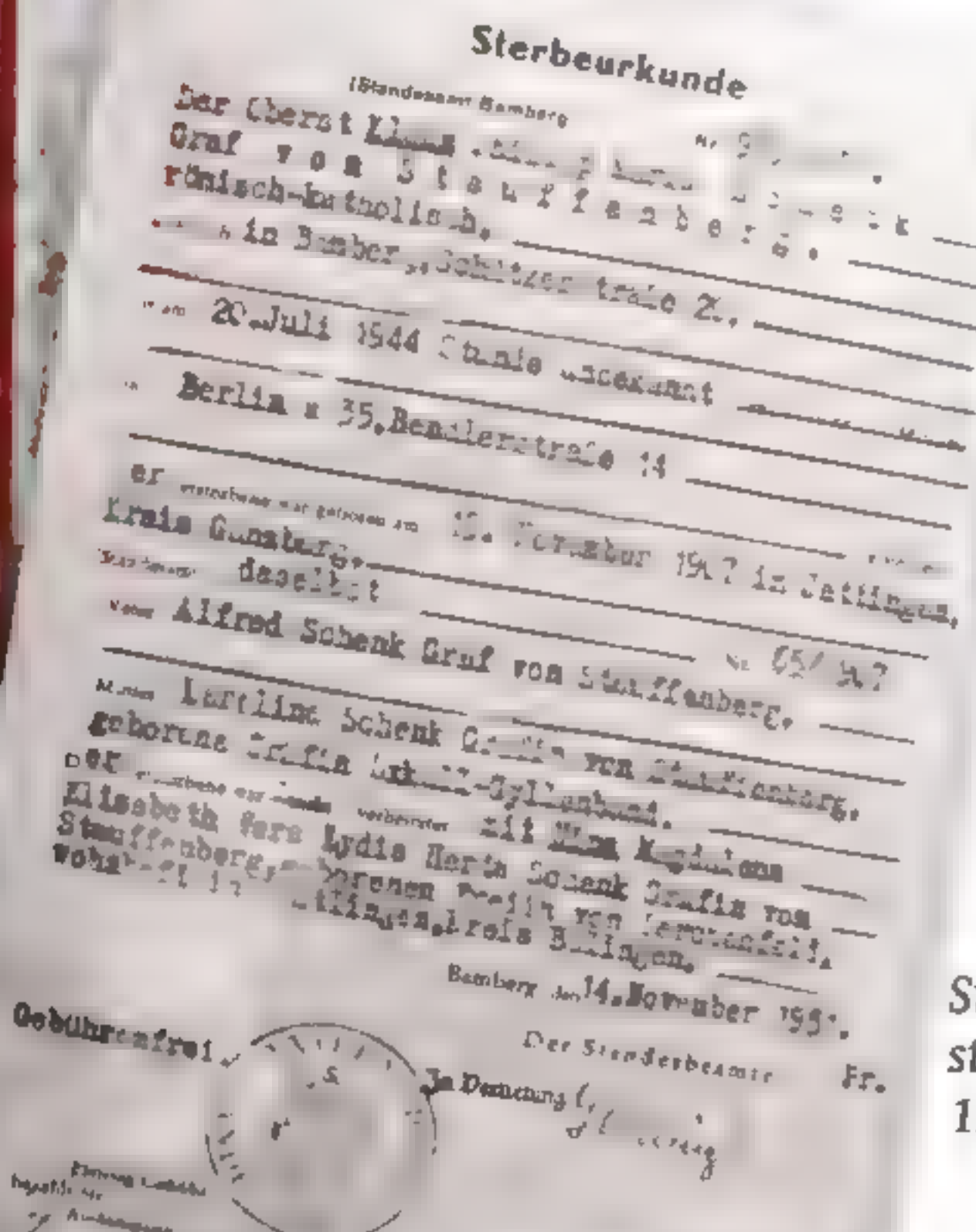
In the following moment, a hail of bullets pierced the body of the man who had devoted his life to overthrowing Hitler.

Operation Valkyrie had failed. ■

Stauffenberg's official death certificate only states that the colonel died on 20th July, 1944, in Bendlerblock in Berlin.

Philipp von Boeselager, who supplied explosives to Stauffenberg, survived and lived until 2008.

The Nazi People's Court condemned the assassins to death by "slow suffocation".



HITLER SURVIVED YEARS OF ATTACKS

Shortly after the Nazi takeover, German resistance tried to kill the Nazi leader, but in vain. The Führer survived all attacks.

MUNICH, 1939

■ Intense hatred of the Nazis leads the carpenter Georg Elser to place a bomb in the Bürgerbräukeller in Munich. Hitler leaves the room just before and barely avoids the

explosion that kills eight and severely injures others. Elser was arrested at the border with Switzerland and sent to the KZ camp Dachau. In April 1945 Hitler ordered him executed.



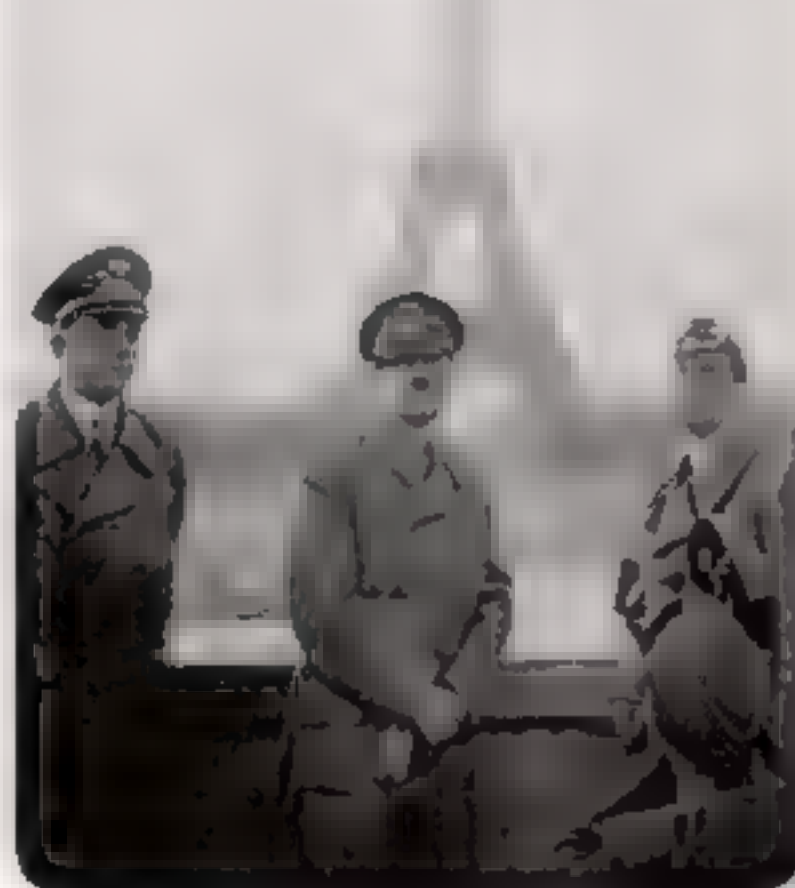
Elser's bomb destroys the beer cellar. Unfortunately, Hitler had just left the room.

PARIS, 1940

■ Fritz-Dietlof van Schulenburg and Eugen Gerstenmaier join the resistance group, which was later behind Stauffenberg's attacks. Four years prior, the two plotted to shoot Hitler during a parade on the Champs-Élysées in Paris.

The parade is cancelled when Hitler leaves Paris early. Both men continue their resistance struggle, and Schulenburg is executed for his role in the assassination in 1944. Eugen Gerstenmaier is sentenced to seven years in labour camp, but survives the war and becomes President of the Bundestag in 1954.

Hitler avoids death when he leaves Paris early.



BERGHOF, 1944

■ Cavalry officer Eberhard von Breitenbuch brings a gun to a meeting in Berghof, Hitler's summer villa in Bavaria. Breitenbuch almost reaches Hitler, but one of his bodyguards stops Breitenbuch at the last minute, after Hitler issued new orders not to admit aides into the meeting.

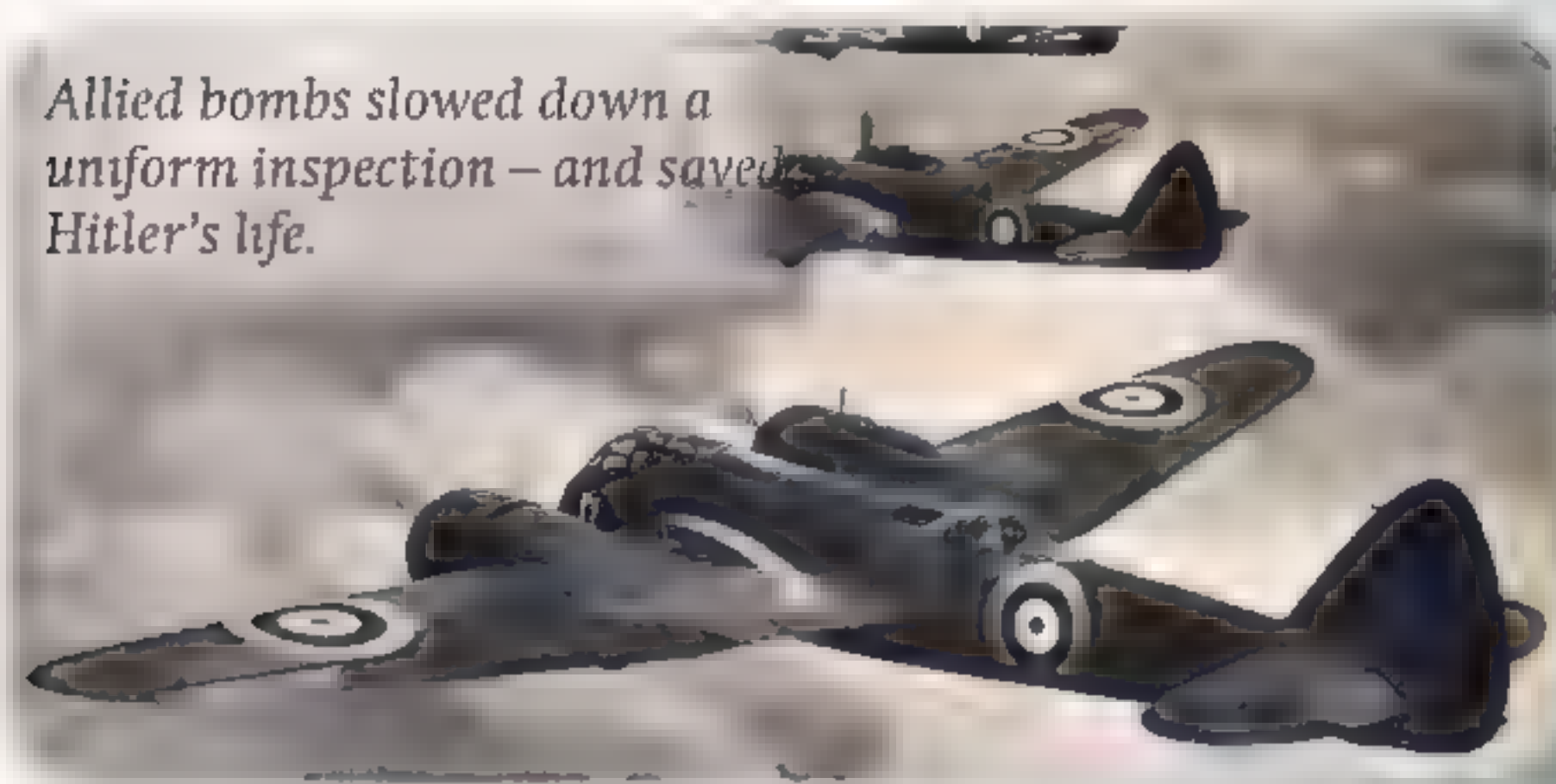
Hitler was to be murdered with a gun in his home in Berghof.

WOLF'S LAIR, 1943

■ German officer Axel von dem Bussche agrees to kill Hitler with a suicide bomb during a showing of new Army winter uniforms at

Wolf's Lair. Unfortunately, an Allied air raid destroys the truck en route from Berlin and the uniforms never arrive.

Allied bombs slowed down a uniform inspection – and saved Hitler's life.

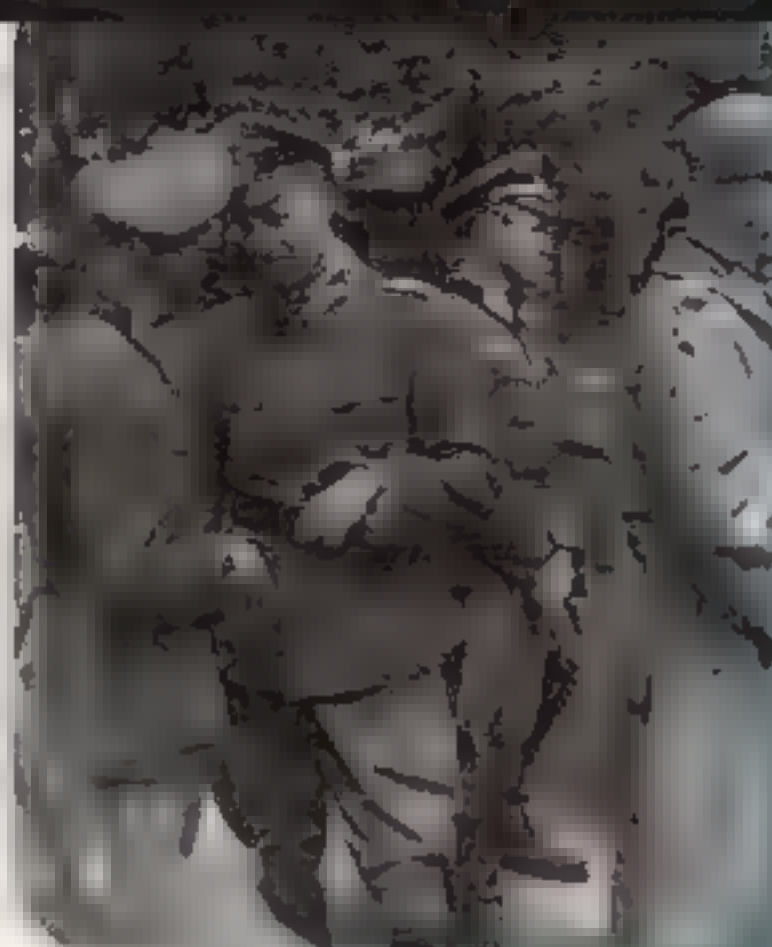


EASTERN FRONT, 1943

■ Henning von Tresckow smuggles two bottles of liquor onto Hitler's plane in Smolensk on the eastern front. The bottles contain bombs that never go off due to a defective detonator.



Two bottles of Cointreau hid the bombs.





HOLOCAUST

1933-1945

To fulfil the ancient dream of a great German empire, Hitler made every effort to eradicate the Jews of Europe. First, the Nazis took their homes and businesses and moved them into ghettos; then they forced them to slave away into labour camps. That was only the beginning. Nazi atrocities increased to horrific levels and more than six million people were killed in one of the world's most horrible campaigns of genocide.

In the last years of the war, industrialists, SS troops and camp guards efficiently engineered the mass extermination to almost perverse perfection.

1933-1945

1933 Nazis build the first KZ camp in Dachau for political prisoners.

1940 The first Jews move into the Warsaw ghetto.



1942 "The final solution to the Jewish question" is presented in Wannsee.

1943 900,000 Jews are deported to and executed in Treblinka.

1945 Soviet soldiers liberate 1,500 survivors in Majdanek.

1933 → 1940 → 1942 → 1943 → 1945

An icy gust cut into the face of Miriam Wattenberg this freezing October night. Early winter winds swept through the Warsaw ghetto streets, blowing snowflakes through the air. Miriam felt the cold down through to her bones, even though she was one of the few in the ghetto wearing a fur coat. Along the fences and walls, shivering creatures huddled together trying to keep the cold and death at bay.

Walking through the darkness, Miriam stumbled and fell. She got up and was terrified to see what she had tripped over: a pair of bare, milky-white legs. The frozen legs stuck out of a lifeless upper body, which lay in the snow naked, covered only by some fluttering newspapers. Another lost soul struggling for survival had robbed the body of its clothes. Frightened by the horrible sight, the girl hurried home to the district where her Jewish family lived crammed in a single room.

This is how Miriam Wattenberg remembers her 17th birthday in 1941. By that time, she had spent an entire year within the solid walls of the Warsaw ghetto, crammed together with 450,000 other segregated Jews. The Nazis had successfully removed them from their homes and separated them from the rest of the local population.

400 GHETTOS SHOT UP

Since their invasion of Poland in September 1939, the occupying German forces worked systematically to separate the "inferior" Polish Jews from society and to strip them of all of their

property and rights as citizens. Polish Jews were displaced from their homes and moved into ghettos so that the "Aryan" Germans could take over the houses and businesses. The first Jewish ghetto in Poland, Piotrkow Trybunalski, was created just 38 days after the invasion. From then and until 1942, the Nazis created nearly 400 ghettos scattered throughout the country.

The Polish Jews had seen the German war machine roar throughout their homeland. They had heard of the Jewish hatred in Nazi Germany, where even the children were trained to abhor the Jews. Their school books were filled with vicious cartoons demeaning the Jews and the Germans even developed board games with names such as the *Juden Raus!* (Jews Out!) with figurines depicting the Jews with big pointy hats.

The creation of the ghettos was just the first step in the Nazi's systematic plan for the displacement and extermination of Jews. The scheme would become one of the world's worst genocides killing six million people across Europe: Holocaust.

SQUEEZED LIKE CATTLE

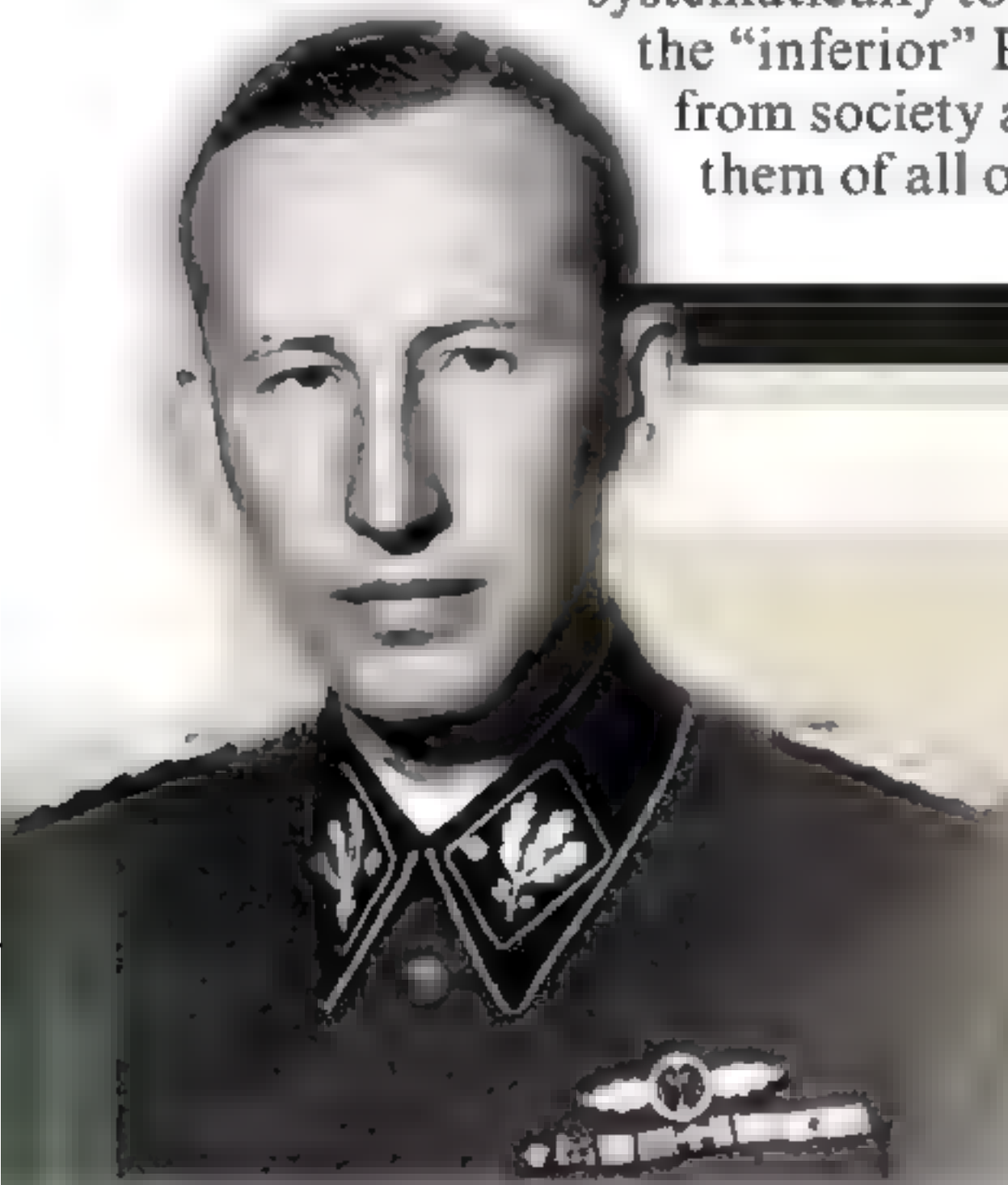
For Miriam Wattenberg and the other residents of the ghetto, the hope of surviving still existed in the winter of 1941. With only the most important possessions wrapped in suitcases or loaded on carts, the Jews were led to the nearest ghetto and squeezed like cattle into a fold. Within the ghetto's walls, the living space was so limited that up to 30 Jews lived together in a single room.

Adult men and women were forced to work for up to 12 hours a day. They swept streets or laboured at the factories

In Warsaw's ghetto, the lucky ones lived together in cramped rooms. Others tried to survive on the street.

supplying the German army with equipment. The ghetto's so-called "Judenrat" – a special council consisting of selected Jews, most from the wealthy class – was responsible for recruiting forced labourers for the Nazis. As a rule, the

83,000 Jews lost their lives in Warsaw's ghetto from 1940 to 1942 from hunger, disease and exhaustion.



REINHARD HEYDRICH | 1904-1942

THE BRAIN BEHIND THE HOLOCAUST

■ When the Nazis forced political opponents into the first concentration camp at Dachau in 1933, those prisoners had been selected by the German *Schutzstaffel* – SS (Protection service) following orders from Reinhard Heydrich. Heydrich was a ruthless and ambitious Nazi. Within two years of joining the party, he had founded the SS and rose to become the chief of Reich Main Security overseeing the SS, Kripo and the

Gestapo. In 1938, Heydrich organised the nationwide massacre of Jews through a series of night time raids known as *Kristallnacht* (night of broken glass). Hitler chose him to design the strategy for the mass extermination of all Jews in Europe. The Nazi security chief had just delivered the plans for death camps and gas chambers before Czech resistance hit him with a bomb on 27th May, 1942. Heydrich died of his injuries.

Head of the Gestapo – Master swordsman – The strategist behind "The final solution to the Jewish question"

Deportations of
especially Polish
Jews from ghettos
to death camps
escalated in 1942.



poorest of the ghetto ended up with the harshest jobs, because better-off Jews exploited their connections, Judenrat, to get council jobs, or be assigned to convenient tasks that came with extra food rations. Historians report how the upper class of the Warsaw ghetto ate in restaurants and rode about in hand-drawn rickshaws, while others had to fight to get any of the limited foodstuff that the Germans shipped into the ghetto.

DAILY RATION 184 CALORIES

By conscious design, the Nazis let the weakest Jews starve to death by systematically reducing the amount of food that was allowed to reach those trapped behind ghetto walls.

According to Polish sources, German guards in 1941 consumed 2,500 calories a day, while the Jews in the ghettos struggled to stay alive on just 184 calories. The

systematic starvation killed 5,000 Jews every month. Yet, the suffering of the Jews in the ghettos was not enough to satisfy the Nazi party. Nazi ideology saw the Jews as an impure race and an obstacle on the road to the power.

In 1940-41, the Nazis initiated deportations of Jews from the ghettos and their occupied territories to the concentration camps, which were typically hidden in remote areas. Under coercion, the weak and starving Jews were driven to train platforms on the edge of the ghettos and packed into train wagons intended for cattle. Here began the journey to the concentration camps, which for thousands upon thousands of Jews also became their final destination.

"WORK MAKES YOU FREE"

The image of a concentration camp is often linked to the targeted extermination camps,

where the Nazis loaded the Jews directly from train wagons into gas chambers and from there to mass graves, but during the first years under Hitler, concentration camps served primarily as labour camps.

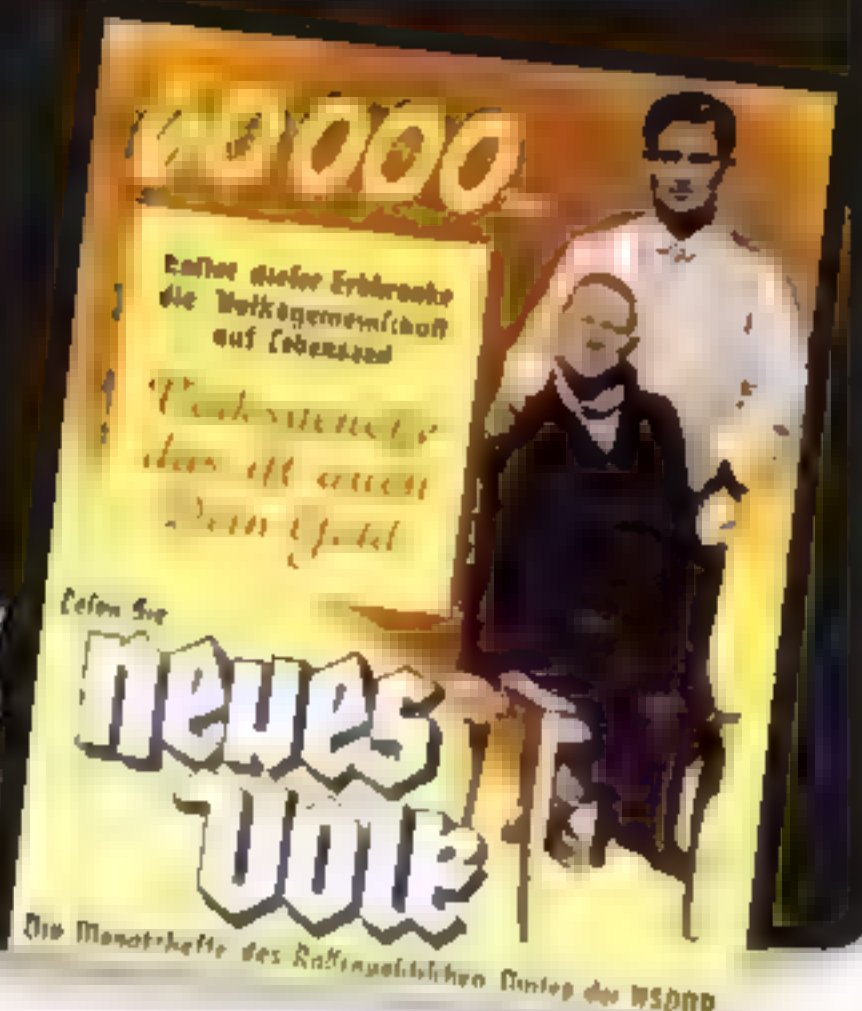
In 1933, when Hitler took power, the Nazis established concentration camps where they could block political opponents, gypsies, criminals and homosexuals. Here, the Nazis could "scour" them with exhausting work and hard discipline. The camp guards were given carte blanche to whack the prisoners with sticks and whips if their work performance was not satisfactory. At the outbreak of the war, the German war industry's need for labour exploded, and forced labour camps shot up at home and in the occupied territories.

The largest labour camp was Auschwitz in southern Poland. Here, new prisoners were led in through the gate with the macabre welcome greeting in iron "*Arbeit*

DISABLED BY PITY

As early as 1939, the Nazis began their human cleansing of physically handicapped, severely ill and retarded Germans, which they believed were a threat to the Aryan race. Carbon monoxide executions

were carried out as "compassionate killings" in euthanasia institutions. In Nazi propaganda material, Germans could read that every disabled person alive would cost the state 60,000 Reichsmark.



Macht Frei", (work makes you free) and to keep track of the thousands of Jews, everyone on arrival was given a tattoo on the left forearm.

"From now on you are not people – you are a number", the message came to the new arrivals. The camp guards then robbed the new arrivals of anything valuable, shaved their heads to reduce the risk of lice and fleas and ordered them to change their clothes with the well-known blue and white striped "pyjamas".

If life in the ghetto had been inhuman, in the concentration camps it became a living hell. 05.00 every morning, the camp guard commanded the prisoners to count before they were sent out for work. In Auschwitz, which after several expansions ended up being the largest of all concentration camps, the fortunate prisoners worked in the factories, which produced aircraft parts and rubber for the army. The unfortunate ones had to slave away in the rock quarry,

breaking stones into pieces. All the workers were subject to punishment if the pace was not high enough or results were lacking. During a long working day, the prisoners could only rest during a short meal break, where at best, they were given a mere half

litre of thin beet or potato soup. Muscles disappeared and the workers grew weaker day by day. When their bodies gave out, they collapsed from exhaustion and as they lay dying, their backs and limbs were broken by the angry guards who punished the "waste" with whips and rifles.

"They simply set out to annihilate every sense of humanity in us, exhausted us physically to the bitter end," a surviving concentration camp prisoner told later.

PRISONERS STAYED WITH THE BODIES


In summer, the prisoners slaved 12 hours a day, in the winter a little shorter. Their muscles trembled from exhaustion when the prisoners had to crowd together like cows to receive their evening meal. On a good day, the menu was 300 grams of bread, sometimes mixed with sawdust, 25 grams of margarine and perhaps a modest piece of sausage or cheese. But the meagre rations were not enough to sustain hard

work or to maintain even body heat. Tired and weakened, the prisoners who had no clothes other than the jumper and a pair of clogs, had difficulty standing against the evening cold. The night frost cut through the barracks' uninsulated walls, forcing the prisoners to lump together to try to get warm. The prisoners did not have to try hard to get close to one another; the Nazi's crammed up to 1,000 prisoners into the 400 square metre barracks. Often, the forced labourers huddled together in a bunk bed with four others, and when their weak and sickly companions died next to them in bed, the prisoners had to stay with the bodies until the next morning. But the ultimate atrocities of the Nazi concentration camps were yet to come.

HEYDRICH CREATED "ENDLÖSUNG"

For Hitler, the Jews stood as the hideous and crucial obstacle to fulfilling the dream of a racially pure German state. The "rats", which he called the Jewish inhabitants, had to be taken away, and so Nazi leaders were tasked with designing a plan that would serve as the "final solution to the Jewish question". Historians believe that Hitler himself developed the ideas for the extermination of the Jews in the early 1941, during the advance of the German war machine into the Soviet Union. Here, the Nazi special forces groups had been given orders to cleanse the land and to make the newly captured Jewish areas "Jew-free".

The chief architect of the plan for the systematic executions in the camps, Reinhard Heydrich, had demonstrated his ruthless



In 1944, camp management decided to extend the railway tracks all the way into the Auschwitz-Birkenau death camp.

hatred of the Jews as Leader in charge of the German Sicherheitsdienst (the SS) and the Gestapo. On 31st July, 1941, he received a directive from Hitler's right-hand man, Hermann Göring, who appointed him to devise and initiate the Final Solution. Just six months later, in January 1942, Heydrich presented his extermination plans to 14 other senior Nazis at a secret meeting in Wannsee. He suggested that those Jews who did not fall away by "natural departure" during forced labour should be treated "appropriately", which in Heydrich's plan was essentially cold blooded killing – engineered exterminations of the masses of Jews as quickly as possible.

Despite the somewhat gloomy agenda, the Nazis at the meeting did not object to the decision to implement a systematic plan for mass genocide, said Adolf Eichmann, who was responsible for the logistics:

"I do not remember any details, but they talked about the methods of death, extinction and destruction. Then people talked freely together while enjoying their drinks.

EXTERMINATION BEGAN

The Wannsee Conference launched the so-called "Action Reinhard", which consisted of establishing three highly efficient extermination camps as quickly as they could be built. By the end of February 1942, the first new

factory of death, Belzec, was ready to receive the first human transport. The Jews who had struggled to build the camp were among the first victims. Belzec lay on the eastern side of Poland, right at the Soviet border, far away from German homes. The next two extermination camps at the remote locations of Sobibór and Treblinka were completed by the summer of 1942.

In the Chelmno camp, which was more centrally located in Poland, the Germans had already gassed Jews prior to Action Reinhard by locking them into lorries and letting carbon monoxide seep into the hold until the victims collapsed and suffocated. But in the three newly established camps, the Nazis built specially designed gas chambers where they could cheaply and easily murder far larger numbers in much less time.

The inspiration came from the euthanasia institutions of the 1930s where the Nazis had executed disabled people to "spare" resources for healthy, productive German citizens instead of wasting them on residents who in the eyes of the Nazis were useless. The Nazis also constructed new gas chambers, among others in the KZ camps Auschwitz and Majdanek, which were thus both converted into combined work and extermination camps.

In order to make logistics work smoothly, Heydrich placed the death camps in close connection to Poland's well-developed rail network and from 1942 onward, continuous strings of trains moved across Europe, heavily loaded with their human cargo of live meat and blood. From

"Nazi's crammed up to 1,000 prisoners into the 400 square metre barracks".



The camp prisoners slept in layers in the overcrowded barracks where diseases and death ruled.



Mountains of shoes from over a million Auschwitz victims. Camp guards gathered clothes, hair and teeth from the dead.



11.000.000

0 200 km

EXTERMINATION WAS PUT INTO SYSTEM

To be able to exterminate Jews as quickly and cheaply as possible, Nazi Leaders devised a network of industrialised slaughterhouses. The concentration camps were built near the existing rail network. Nazis extended railway tracks directly into the extermination camps, where high-efficiency gas chambers could kill up to 2,000 people at a time.

TREBLINKA

- Deported: 900,000
- Dead: at least 900,000
- 900,000 murders between July 1942 and November 1943 made the camp the Nazis' most effective mass extermination facility.



STUTTHOF

CHELMNO

- Deported: 150,000
- Dead: 150,000
- Created as the first extermination camp in October 1941. The Nazis closed the prisoners inside trucks and led the exhaust gas into the cargo hold so they were suffocated.

KOLDICHEVO

SOBIBÓR

- Deported: 200-250,000
- Dead: 200-250,000
- As part of Action Reinhard, the Nazis equipped Sobibór with six gas chambers. Originally, the bodies were buried in mass graves, later, the camp switched to cremation to hide all evidence.

MAJDANEK

- Deported: 500,000
- Dead: 80-110,000
- The main camp served as an extermination camp, while holding prisoners in 14 smaller branch camps around Majdanek. All in all, over 250,000 people died in this cluster of camps.

BELZEC

- Deported: 600,000
- Dead: at least 600,000
- Was listed as the first of three death camps in the Nazi Action Reinhard, to exterminate three million Jews.

AUSCHWITZ-BIRKENAU

- Deported: 1.3 million
- Dead: 1.1 million
- In the Nazis' most bloody and infamous slaughterhouse, prisoners — mostly Jews — were transported directly from the freight train to the camp's crematoria, which consisted of both gas chambers and ovens. 1.1 million Jews were executed in Auschwitz-Birkenau.



POLAND

SLOVAKIA

MAUTHAUSEN

- Deported: 197,000
- Dead: unsure, 100,000
- Was notoriously the most cruel of the labour camps due to extremely violent guards. In 1942 the camp got its own gas chamber for 80 people and a mobile gas chamber arranged in a truck that could kill 30 at once.



RAVENSBRÜCK

SACHSENHAUSEN

BUCHENWALD

- Deported: 255,000
- Dead: at least 56,000
- Constructed in 1937 for political prisoners, later also for Jews. 11,000 Jews died in the camp.

DORA-MITTELBAU

GROSS-ROSEN

THERESIENSTADT CZECH REPUBLIC FLOESSENBUERG



ARRIVAL: the camp guards robbed the prisoners of all their jewellery, ordered them to take off their clothes and shaved their heads – as in the Mauthausen photograph. After the liberation of Auschwitz, the Allies found eight tonnes of cut hair in sacks.



CREMATORIES: selected prisoners from the so-called "Sonderkommando" had to drag their prisoners to the camp crematoria ovens after the executions.

you are working slowly'. I release my stiff fingers. I cut the hair off the woman and throw it into the suitcase like everyone else's," recalled Rajchman. After work, the guards forced the Jewish "hairstylists" to sing in choirs, while the gas in the adjacent chamber penetrated the women's lungs.

NAZI RATIONALISATION

During 1942 and 1943, the Nazis expanded the number of gas chambers to match the increasing volumes of human transport that rolled in from the German-occupied part of Europe. Treblinka, which was as large as 35 football fields, including a residential area for the 150 employees and a ghetto for the approximately 800 workers, was initially equipped with three gas chambers. But when the efficient commandant Franz Strangl took over in August 1942, he built 10 new chambers. Each chamber was seven

times seven metres and was large enough for 400 victims to be gassed at a time.

When all of the prisoners were pushed in and the steel door was sealed, the guards started a diesel engine that slowly sent deadly carbon monoxide through the pipes in the ceiling. In Belzec, Sobibór and Treblinka, the Nazis used engines from old Soviet tanks, while the ones used in Auschwitz-Birkenau, Sachsenhausen and Majdanek switched carbon monoxide with the poison gas Zyklon B, which was originally a pest control agent.

Each gas chamber was equipped with a small window so the guards could note when the victims fell. A gassing usually took 10 minutes in the small chambers and up to 15 in the larger chambers.

"The bodies in the large gas chambers, where death took longer, were changed in a horrific way. They were totally black in the

face, completely burned and their bodies swollen and blue," said Rajchman.

As part of the Sonderkommando, he, along with his Jewish fellow prisoners, had to tow the lifeless bodies out of the chambers and to the "dentists", who removed the gold and platinum teeth of the dead so that the Nazis would not miss any last bit of value that they could steal from the Jews. Afterwards, the Jewish forced labourers dragged the victims' lifeless bodies out and dumped them in the camp's mass graves. Down in the 10-metre-deep holes stood a final team of Jewish workers who sorted and stacked the dead so there would be room for more.

THE NAZIS WIPE THEIR TRACKS

When the German army began to suffer defeat on the battlefield in 1943, SS leader Heinrich Himmler decided that all traces of the mass executions should be deleted.

During that time Hitler and his armies encountered resistance on all fronts, not just on the battlefields, but even in the death camps, the Nazis experienced rebellion among Jewish workers. In Treblinka, the prisoners in the summer of 1943 got a copy of the key to the camp's arms store and set fire to the gas chambers on 2nd August. Almost 200 Jews escaped through the fences and quickly disappeared into the forest. One of them was Samuel Willenberg, who was hidden between trees and shrubs by a young girl from a nearby village.

"Hell burns down to the ground, hell burns down to the ground!" He shouted as he staggered into freedom, reeling in pain from a gunshot wound. Together with

TECHNOLOGY

CULTURE.....

ECONOMY...

EVERYDAY..



Germans were kept in ignorance

While the Jews were exterminated in concentration camps, life went on in Germany. The Nazi leadership was determined to hide the mass murders from the ordinary German population. Within the Nazi

Party, everyone who dealt with deportations and camps had strict orders to keep quiet. However, historians believe that by 1943 many Germans knew about the atrocities, but denied it after the war, for fear of the consequences.



MASS GRAVE: the bodies were either burned or thrown into mass graves where they rotted. As the Allies approached the camps, the Nazis were busy digging up and cremating them to erase the tracks.



SURVIVORS: when Soviet troops reached Auschwitz on 26th January, 1945, they found a collection of weakened prisoners who could barely bear the weight of their own bodies. Here, Red Cross workers lift a 15-year-old prisoner out.

about 50 other of the 200 escaped, Willenberg survived. The rest were tracked down and killed by the German guards. The uprising marked the end of the slaughterhouse in Treblinka.

"After the rebellion, I ran the camp on my own for a month, but no gasses were carried out. Then Treblinka was levelled and planted with lupins," said the camp's last commander, Kurt Franz, who at his arrest in 1959 still kept a photo album from his time in the concentration camp, titled *Schöne Zeiten* (Good Times).

FROM CARNAGE TO LIBERATION

In addition to Treblinka, fearing future repercussions, the Nazis also abolished Belzec and Sobibór and turned them into natural areas during 1943. Chelmno continued to operate until 1944. In the hope that the ash from burned bones "could not talk", the Nazis turned their efforts to digging up the bodies from the mass graves and then cremating them. But not all of the evidence could be hidden, both Auschwitz and Majdanek were still standing and their gruesome testimony of the mass genocide would soon be discovered.

When Russian troops marched into the Nazi Polish occupation territories in the autumn of 1944, the Germans in Majdanek were busy. In a hurry, they began to drive the prisoners to Auschwitz and other camps.



Zyklon B poison gas was originally intended for pest control.

Altogether, 15,000 walked west, and as late as the day before Soviet soldiers entered the area on 23rd July, 1944, the guards had sent away the last 1,000 prisoners who could walk. In the rush, the Nazis did not destroy the crematorium in Majdanek and also had to leave behind 1,500 prisoners who were too weak to walk. The sick and dying prisoners were surprised when the Red Army arrived at the fence. Some of the prisoners were horrified when they recognised their liberators. They were Russian deserters who had collaborated with the Germans during the war, but had been injured during the fighting, and had ended up in the camp.

ALLIES WERE HORRIFIED

Simcha Bunem Unsrdorfer had a much more positive revelation during the liberation of Buchenwald on 11th April, 1945. The Jewish 16-year-old Slovak boy, lay weak in his barracks when he heard the camp's emergency siren began to sound

“Then Treblinka was levelled and planted with lupins”

and he feared that his final hour had come. As he heard heavy vehicles coming closer, he dragged himself to one of the windows and peeked out. He heard the sound of tanks. As he realised that the brown tanks had single white stars on their sides he shouted: "Americans! Americans!"

The Americans moved into Buchenwald, one week after they had liberated their first concentration camp at Ohrdruf, which was a sub camp of Buchenwald. On arrival at the Ohrdruf camp, infantrymen from General George Patton's Third Army were met with the sight of dozens of emaciated corpses scattered about in piles, naked or wearing prison clothes.

When the Allied Force Commander, General Eisenhower, arrived, he was so shocked by the sight that he immediately sent for congressmen and journalists from the United States to see and document the horrors with their own eyes.

A shocked Eisenhower said: "The American soldiers did not know what they were fighting for until they had seen the concentration camps. Only then did they know what they were fighting against." ■



THE FALL OF BERLIN

1945



In April 1945, the Red Army were outside the gates of Berlin. In two years Stalin's forces had marched from Stalingrad to Germany's heart and now the hour of vengeance had come. In a last desperate attempt to save the Third Reich, Hitler forced very young boys and old men into defensive positions, as Berliners huddle in their bombed-out city, clinging to hope for mercy from the enemy.

1945



12 January The Red Army enters a major offensive in the East, while US bombs Berlin.	16 April 2.5 million Soviet troops begin an assault on Berlin.	19 April Russian troops break through the German defences on the River Oder.	30 April Hitler commits suicide, while the Red Army relentlessly occupies Berlin.	2 May Berlin surrenders to Stalin's troops.	9 May Germany finally surrenders in Berlin.
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1945

On 12 April, 1945, the Berlin Philharmonic was on stage for the last time in Hitler's capital. On the program was Wagner's *Götterdämmerung*.

Considering the situation outside with all of the doom and gloom, the music had been extremely well chosen. A few years earlier Hitler had dreamed of rebuilding his Nazi world Capital "Germania", the city was now in tatters. The Central district of Tiergarten, home to the Reichstag and Berlin's oldest buildings, looked like one huge bomb crater after the Allies' intense bombing raids.

But inside the concert hall Germans could get away from the brutal reality. The symphony orchestra played here because Albert Speer – Hitler's armaments minister and Germania's chief architect – had personally secured it against military attack. Berliners and the military leaders could leave the horrors of war for a while and let themselves be carried away by the music.

NAZI PARTY CONTINUES ON

Ever since the defeat at Stalingrad in February 1943, it has only gone one way for the German war effort – backwards. On 23 January, 1945, the Russian "Ivaner" crossed the kingdom's old borders and during the spring captured both East Prussia and Poland. While here in mid-April the Berlin Philharmonic forced the last gloomy tones out of their cellos and bassoons, the Red Army was less than 200 kilometres away.

The Russians' rapid advance created a bizarre atmosphere in the big city. Party leaders and military top officials tried to

escape the reality with big, decadent parties. But no matter how much champagne, chocolate and caviar German officers ate and drank to try to escape reality, the reality could not be denied. The Swedish military attaché made this comment about one of the parties:

"The evening was quite tragic. There was an atmosphere of hopelessness. Most didn't even try to put on a happy face, but faced the situation as it really was. Several were maudlin and took to the bottle".

100.000

Berliners were made homeless during one American bombardment March 3, 1945.

GOEBBELS PREACHES ON

The Nazi regime insisted – with Joseph Goebbels in charge – to continue on to final victory. With speeches on the radio and comments in the newspaper *Das Reich*, the minister inspired propaganda, during spring the most fanatical Nazis still had

hope and a fighting spirit, and he proclaimed unabashedly Hitler's genius and that he was the saviour of the German people. Some Berliners bought Goebbels' message. In a letter to her husband, a soldier, a hopeful woman wrote:

"The whole world has joined forces against us, but we will show them what we are capable of. Yesterday everyone in our town paid an oath to the Führer. You should have seen it. I will never forget the impression of strength and pride. We do not yet know when we'll be sent into battle."

The ordinary Berliner had long since realised that the war was lost. Daily air strikes forced the city's three million inhabitants to spend more time crammed into shelters and bunkers than in their own homes. Down here, black humour dominated panic. The acronym for the



April 20, 1945 Hitler had an audience with 12-year-old Alfred Czech and his Hitler Youth comrades. Shortly afterwards, Czech was shot – he survived, but ended up in Russian captivity.

shelters was LSR – Luftschutzraum – now Berliners translated it as "Lernt Schnell Russisch", learn Russian in a hurry.

In their bunkers, women could be heard telling nervous jokes like: "rather a Russian on the stomach than a Yankee in the head" – they understood that it was better to be raped by one of the advancing Russians than be hit by an American bomb. Shelters were equipped with all amenities, but often the authorities had to lock the toilets to prevent depressed Berliners from locking themselves in and committing suicide.

Between the air strikes, townswomen spent hours in line at the grocery store, hoping to receive their meagre food ration before the next air raid started.

Berliners prayed that the Western Allies headed by the USA, would reach Berlin before the Russians. More than a decade of Goebbels' propaganda machine had planted a fierce hatred of the Slavs and communism, and rumours of Russian army attacks on German civilians – and the many rapes. As the advancing Russians came closer – Berliners shuddered.

HITLER ENLISTS CHILDREN

The fear was well founded, because there were virtually no regular troops to defend Berlin. Armaments Minister Speer ordered almost all the front facing East – to reinforce defence of the River Oder, and in reality hoped that strikes on Berlin would be as light as possible, thereby saving both civilians and the city itself. In the war's final days, military leaders launched a comprehensive recruiting drive for Hitler's civilian militia. Children as young as 12

During 1944 and 1945, American bombers reduced large parts of Berlin to ruins.

TECHNIQUE.

CULTURE.....

ECONOMY.....

EVERYDAY



Berliners huddle in shelters

During the last year of the war the Allied bombers totally dominated the skies over Berlin. The city council had created a large number of shelters. U-Bahn station was a bunker designed for 1,500 people, but often it contained three times as

many. To guard against expiring from lack of oxygen the densely packed Berliners used candles. If the light began to flicker or went out, it was time to head to the surface as soon as possible and look for air.







years old, had to prove their patriotism as defenders of Hitler's bombed Capital. A myriad of Hitler Youth members volunteered, while others were visited by SS officers and threatened if they didn't join.

All around the city SS men trained the youths to attack Soviet tanks on foot or by bicycle, armed with a Panzerfaust – a lump weapon that could pierce the armor of Russian T-34 tanks. Others dug trenches or made bombs from empty cans filled with plastic explosives.

Nazi leaders tried to convince new recruits that the fight could still be won – a groundbreaking weapon that could turn the tide of battle, waited, just around the corner.

"I had not realized that Germany was on the road to defeat. I believed the rumours about our miracle weapon ... I was ready to sacrifice my life for Hitler in defence of our homeland", recalls the former Hitler Youth member, Armin Lehmann.

Side by side, the young boys trained with old men in uniforms. The old men had last fought in the First World War trenches. In contrast to the fanatical young boys a few of the gray-haired recruits believed the war propaganda, but SS men helped keep them allied by shutting up anyone who opposed Hitler's desire to fight to the end.

RUSSIANS GO INTO BERLIN

On April 19, 1945, the Red Army crossed the River Oder just 90 km from Berlin. The day after – on Adolf Hitler's 56th birthday – the first Russian troops set foot in Berlin's suburbs. Down in his personal bunker under the Reich Chancellery, Hitler declared that he would stay there and only leave at the last minute.

On April 21, Field Marshal Zhukov's tank squadron crossed the ring road in

Old men and young boys were equipped with Panzerfaust missiles set to defend Berlin. They often went without helmets and other military equipment.

Within a few days of urban combat Soviet tanks and guns crushed all resistance from German militia.

North Berlin heading for the Reichstag, Reich Chancellery and Hitler's bunker.

Russian shells rained down on the city, and fighting began from house to house and from street corner to street corner between Russian tank units and the old men and young boys in the civilian militia.

Young Berliners

threw themselves into unrestrained sex in the last day's before the Russians came.

Berlin housewives defiantly continued their efforts to provide food for their families. While housewife Dorothea von Schwanenflügel stood in line to receive her food ration, she saw a boy in a uniform too big for him on the other side of the road, where he tried to hide behind some bushes.

"Tears ran down his cheeks and he was afraid. I asked him gently what he was doing there.

He said that he had been ordered to lie and wait. When a Soviet tank came, he had to run under it and detonate his grenade. I asked how it worked, but he did not know. He couldn't even lift the grenade".

As the Red Army rolled into Berlin, the city's jumble of defenders from the Hitler

During the advance the soldiers of the Red Army cleared city buildings with grenades, without first checking if there were civilians or soldiers inside.

Youth, civilian militia and Waffen-SS, large tanks with machine guns and Panzerfaust missiles all advanced. Russians are some of the early heavy losses, but the situation quickly changed with effective assaults and clearing basements with flame throwers and grenades. An unknown number of civilians lost their lives.

"We did not have time to distinguish who was who", a Russian soldier related, "sometimes we threw just grenades into basements and hurried on".

PILLAGING AND RAPING

For the people of Berlin a nightmare had only just begun. Throughout the Red Army's longstanding advance westwards, Soviet propaganda had filled soldiers' ears with invitations to kill any Germans and take revenge for the unimaginable atrocities that Hitler's army had committed on Soviet soil in the war's first year. Soviet soldiers who had fought their way to Berlin all the way from Moscow or Stalingrad, took what they felt was their right. Groups of soldiers

USA STOP OFFENSIVE

On April 12, 1945, US troops crossed the Elbe, and General George Patton estimated they would reach Berlin in a few days – a week before the Red Army. Yet, he ordered the military to stop the advance. This saved

the Americans many soldiers' lives. President Roosevelt's will was for it to stop: to improve relations with the Soviet Union by giving Stalin a symbolically important victory in Berlin. President Roosevelt had died the same day.

KEY MOMENTS



“For Berlin’s civilians the nightmare began”

poured into private apartments with rifles and looted residents for watches, jewellery and other valuables. At the maternity clinic and orphanage Haus Dahlem in South Western Berlin, a company of soldiers ruthlessly raped nuns, young girls, pregnant women, new mothers and even old women.

In Berlin cellars, drunken Soviet soldiers appeared with torches after dark in search of women who they raped together.

Mothers hid their daughters in attics or closets for days at a time for fear they would be raped by the Russians. Other women entered into “partnerships” with a single soldier in the hope that he would prevent his comrades from committing gang rape.

Meanwhile, the old men and teenagers in the civilian militia fought on, often with an SS man or fanatical Hitler Youth recruit’s gun barrel at their neck. Those who escaped from the hopeless battle, took refuge in basements where women burned militia uniforms, so Stalin’s troops would not think that they had found a military position. An equally great danger, however, was the gangs of SS men who drove around the streets and if they saw a white flag hanging from a building, they rushed in and executed all the men in the house.

POISON AND A BULLET

On April 30 Zhukov’s troops launched an attack at dawn on the Reichstag in the heart of Berlin. A few hundred metres south of the bombed-out building, Adolf Hitler was prepared in his shelter deep

below ground. At noon, he issued his last military order as he allowed General Weidling to leave his troops in Berlin, whilst he tried to break out and join the remaining German troops outside the city.

Hitler ate lunch with his dietician and his two secretaries. Hitler had married his partner, Eva Braun, the day before at a small ceremony in his bunker. She did not attend the luncheon.

After lunch, Hitler said a brief goodbye and shook hands with the inner circle of the Nazi headquarters: Goebbels, Reich Minister Martin Bormann, Generals Hans Krebs and Wilhelm Burgdorf and the two secretaries. Along with Eva Braun he retired and then returned underground.

“Many German officers had chosen to spend their last night of freedom having a drinking spree”.

Between the hours of 14.00 and 15.00, April 30, 1945, Adolf Hitler killed himself and Eva Braun committed suicide by taking cyanide. For fear of falling into Russian hands, Hitler shot a bullet through his own head. Two SS officers carried the two bodies from the

bunker, where the Führer’s wish was to be burned. The day after Hitler’s suicide, Goebbels killed himself too, along with his wife and the couple’s six children.

BERLIN SURRENDERS

General Weidling never managed to break out of the city but surrendered with his staff at six o’clock on the morning of 2 May. The Red Army stormed in and captured the Reich Chancellery, defeating the last resistance in the Reichstag and hoisted a

huge red flag on the roof. During the day the last remnants of German forces in Berlin surrendered. Many German officers had chosen to spend their last night of freedom, drinking in breweries and pubs, and some had not surrendered so the Russians took them prisoner.

On May 7, the German General Jodl signed a treaty on behalf of the makeshift head of state Karl Dönitz, in American General Eisenhower’s headquarters in France. Stalin was furious. The unconditional surrender should take place in Berlin – and for Russians. The Allies agreed and the final surrender was signed shortly after midnight on May 9, 1945, in Marshal Zhukov’s headquarters in Berlin.

STALIN STEALS GOLD AND URANIUM

Hardships were not over for the residents of the bombed out city. Stalin saw Berlin as his rightful reward and the Russian secret service NKVD, emptied the bank of two tons of gold, 12 tons of silver and millions more in cash from the countries that the Germans had occupied. Special Troops robbed factories and laboratories for everything of value and took it back to Russia. Laboratory stocks of uranium were a high priority for Stalin who dreamed of developing a nuclear bomb. Also, nuclear physicists were captured and forced to work for the Soviet regime.

Meanwhile, ordinary soldiers continued their looting and rape in the streets of Berlin. Slowly, the Soviet’s new strategy began to assert itself: since spring, Stalin had ordered his officers to take a more humane approach to the Red Army’s conquest. Now that the Germans’ hearts were won, Stalin could establish a viable, Soviet friendly, East Germany following the war. More Russians appeared in Berlin only to plunder the city.

Despite the recent peace agreement, there were still numerous barbaric rapes taking place. A young Russian scientist had

HITLER’S HENCHMEN RAN

Although Hitler ordered the fight to the last man, top Nazis left Berlin in their thousands during April 1945. The absolute Nazi brass did not fight on after Hitler’s death – many hid or committed suicide in desperation.



HEINRICH HIMMLER

Hid in disguise ■ SS leader Heinrich Himmler was trying to negotiate peace behind Hitler’s back, his execution was ordered and he went into hiding. On May 22, he was recognised in Bremen, disguised as a gendarme. He took his life with cyanide.



ALBERT SPEER

Fled to the West ■

National Architecture and armaments minister Albert Speer escaped to Hamburg and worked for Admiral Dönitz’ government, then he was arrested by the Western powers. At the Nuremberg trials, Speer was given 20 years for war crimes and crimes against humanity.



HANS KREBS

Shot himself in the head

■ A few hours after Hitler’s death, the Russian-speaking chief of the army general staff sent a white flag to General Tjuikov with Berlin’s conditions for surrender. When the Russians rejected the claims, Krebs shot himself in his temple.

heard that a young German girl had fallen in love with a German officer, he had forced a gun in her mouth throughout his assault, so she never questioned their rule.

Rape was so common-place that it almost became a part of everyday life. An anonymous female diarist wrote in the days after the war: "Overall, we are beginning to regard the whole thing about rape with a certain humour". It is estimated that there were approximately two million rapes in the last six months. Venereal diseases spread like wild fire, and there was a boom in the number of abortions during the occupation.

But despite looting and rape, the Russian occupation forces and Berliners learned to get along. Not least because of the Red Army efforts to feed the locals: both officially and individually. During the summer of '45 it was the height of fashion in Berlin to have a 'campaign wife', by paying with food, the soldiers enjoyed several "marital benefits".

RUSSIANS DICTATE PEACE

The many abuses that took place, despite Stalin's direct order to behave with more respect, gave the Red Army a poor image. On 3 August, three months after the

Germans had surrendered, Marshal Zhukov, commander of the Soviet occupation of Eastern Germany, tightened the rules violence and "scandalous events".

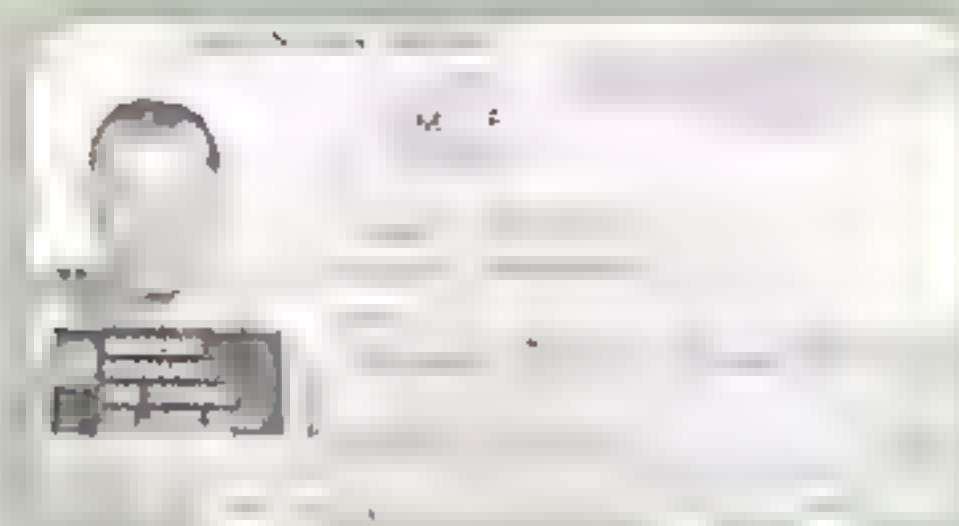
"Such deeds and bad conduct causes us to be viewed in a very bad light, especially now the war is over", was the justification in Zhukov's order. Slowly, Russians started behaving better assaults eased up.

After the war, Germany as well as Berlin was divided into zones between the

Allies, as determined by the Yalta Conference between Britain, the United States and the Soviet Union in February, 1945. Britain occupied North-Western Germany, while the United States and France shared Southern Germany. Berlin was divided into four zones. The division of a Soviet-inspired East Germany and a more democratic West Germany continued until the Berlin Wall came down on November 10, 1989. ■



After the war, many Soviet soldiers thought it was their right to plunder Berliners for their meagre valuables.



HERMANN GÖRING Defected during the hours of the downfall

■ Luftwaffe chief Hermann Göring fell out with Hitler in the war's final days and was relieved of his many offices. He went underground and was arrested when, on June 8, he tried to get an audience with the American General Eisenhower. The Allies condemned Göring to death, but he committed suicide with cyanide the day before he was hanged.



KARL DÖNITZ

Tried to save German troops from Stalin

■ The commander of the fleet, Karl Dönitz, succeeded Hitler as Head of State. From his base in Flensburg, he tried to get German troops to surrender to the United States and Britain rather than the Soviet Union. He was arrested May 23, 1945, and sentenced to 10 years imprisonment at the Nuremberg Trials.



JOSEPH GOEBBELS

Committed suicide

■ The day after Hitler's suicide, propaganda minister Goebbels also committed suicide along with his wife and their six children. Historians have never been able to determine whether he committed suicide with cyanide or a gun.

WILHELM KEITEL

Fled to Flensburg

■ The Allies arrested Wilhelm Keitel, chief of the Nazi Army high command and one of Hitler's closest military advisers, in Flensburg on May 13, 1945. At the Nuremberg trials, he was sentenced to death by hanging. He was hung on October 16, 1946.







JAPAN'S BATTLE TO THE DEATH

1944-1945

Although Japan is inevitably spiralling toward defeat, its extremist military leaders pull out all the stops in the final months of the war against the Allies. Thousands of kamikaze pilots begin ramming their planes into American, British and Australian ships, while the Empire devises a shameless plan to sacrifice millions in the final battle for Japan's main islands.

1944-45

1944 Japan sends the first kamikaze pilot to death.

1945 Okinawa: suicide planes experience their greatest success so far.

1945 Japan makes plans with suicide missions in the thousands.

1945 The USA begins to bomb Japanese cities.



1945 The USA drops A-bombs over Hiroshima and Nagasaki; Japan surrenders.

On the afternoon 6th April, 1945, a powerful force of US and British warships patrolled waters near Okinawa island, southwest of Japan. Inland, US marines were fighting a fierce fight against the island's Japanese defenders, who had dug a network of tunnels with hidden machine guns – but on the water everything was still relatively peaceful.

All of that was about to change. At around 15.00, between 40 and 50 Japanese dive bombers and torpedo bombers suddenly appeared on the horizon. As they approached, the planes began circling the destroyer *USS Bush*. The US warship's crew opened fire and was fortunate enough to shoot two of the planes down but then one of the planes turned directly at the vessel. The plane charged through a hail of bullets from the anti-aircraft guns and crashed midway between the *USS Bush*'s two chimneys penetrating the forward engine compartment, where its payload detonated with a tremendous bang. Water began flooding the destroyer.

DEATH CLOUDS VS ANTI-AIRCRAFT GUNS

The attack on the *USS Bush* was just the beginning. Wave after wave of kamikaze rammed the Allied Fleet over the following hours. More than 350 Japanese suicide pilots plunged into the US and British ships over the next 24 hours. A few days later, new waves of attacks followed. This was the first time the Japanese used swarms of kamikaze. The idea was to outmanoeuvre the ships' otherwise effective air defence with the tactic that the Japanese army

leadership named *kikusui* (Floating Chrysanthemums). The name comes from the banner of a 14th-century samurai, who led his men to certain death for his emperor.

JAPAN IS BACKED INTO A CORNER

The suicidal tactics were a result of the Japanese's increasingly desperate situation in World War II over the last year.

The first seven months after Japan's attack on the US at Pearl Harbor in December 1941 were one long series of victories for the Japanese.

Japan's leadership overestimated how effective the kamikaze really was.

Since mid-1942, however, Japan's war against the Western Allies had only moved in one direction: backward.

By the summer of 1944, hordes of the new American "Superfortress" arrived. The huge B-29 bomber could easily reach and bomb Japan's main islands and US submarines were

sinking a large number of the supply ships headed for Japan. The Empire was under siege, its people starving, and the Japanese Army was becoming desperate.

In order to turn the tide, military leaders under supreme secrecy devised plans for suicide attack units, called *Tokubetsu Kogekitai* or *Tokkotai* (Special Attack Unit).

The idea of using aircraft for suicide missions was fathered by Vice Admiral Takijiro Onishi who christened the attacks, *kamikaze* (divine wind). The first kamikaze attack damaged the Australian heavy cruiser *HMAS Australia* on 21st October, 1944, and four days later young Lieutenant Yukio Seki and his four colleagues became the first kamikaze pilots to succeed in sinking an enemy ship, US escort carrier, *USS St. Lo*, near the Philippines.

This Japanese Mitsubishi Zero narrowly missed the deck of the battleship *USS Missouri* near Okinawa hitting the ship's flank.

In total, the Japanese sent 400 kamikaze pilots to death during the Battle of Leyte Gulf in the autumn and through the winter of 1944-45. The Americans shot down almost half before they were damaged, but with 16 ships sunk, kamikaze pilots still showed themselves as the most effective Japanese weapon against the militarily superior Americans.

Their relative success convinced the Imperial Japanese Navy (IJN) that the kamikaze tactic was worth developing. The result of developing the tactic further led to the *kikusui* tactic off Okinawa, where kamikaze pilots made dedicated raids.

KAMIKAZE ATTACKS SPREAD FEAR

For the crews of the Allied ships, the new Japanese tactic was a frightening development and there were reports of sailors jumping overboard in horror at the sight of Japanese aircraft. British naval aviator Ronald Hay was just about to take

TECHNOLOGY



CULTURE.....

ECONOMY.....

EVERYDAY

The Emperor was God and the war holy

During World War II Japan was swept up by the ultra-nationalist Shinto religion and Emperor Hirohito was considered to be a living god for whom all should be ready to die for. Japan was cast as a divine land populated by

the holy people. "Being a divine country is not just a way of speaking [about ourselves], but fact and reality in our country," wrote Yamada Yoshio – and the holy purpose of the war was to create a new world order.

“There were reports of sailors jumping overboard in horror”

off before a tokkotai plane struck his aircraft carrier, and he later described the Battle of Okinawa as “the worst moment in my life”.

For the Americans, the attacks were even more terrifying. While British aircraft carriers had steel decks, the American carriers were topped with wood, and if a kamikaze hit the right spot, it would surely penetrate the deck and potentially ignite the ship's fuel stores. The only thing the Americans could do was fill the air over the ships with as much anti-aircraft fire as possible.

If there was even the slightest opening, the planes would strike. A US navy

communications officer, Frank Manson, explained, “Eventually, of course, we knew they'd get us, but we hoped, and I think our gunners hoped, that they'd shoot down enough of them that they might pick another target.”

DESPERATE PILOTS RUN AMOK

Japanese nationalist propaganda portrayed kamikaze pilots as warriors willing to sacrifice their lives out of devotion to the empire. Recruitment films showed solemn young men who, in proud ceremonies devoid of emotion, drank sake and tied white *hachimaki* (headbands) around their heads just minutes before heading to battle.

Although some kamikaze pilots did volunteer, their actual motivations were much more conflicted. Many of them were scared, despondent, and disillusioned but it was well-known that a refusal to carry out a kamikaze mission was often a one-way ticket to the bloodiest front lines of war,

while their family back home would be subjected to public humiliation.

At Tsuchiura Naval Air Base, an attendant to the tokkotai pilots, Kasuga Takeo, witnessed the night before their made their final flights:

“Some broke hanging light bulbs with their swords. Some lifted chairs to break the windows and tore white tablecloths. A mixture of military songs and curses filled the air... Although they were supposedly ready to sacrifice their precious youth the next morning for imperial Japanese and for the emperor, they were torn beyond what words can express – some putting their heads on the table, some writing their wills, some folding their hands in meditation, some leaving the hall, and some dancing in a frenzy while breaking flower vases.”

In the months leading up to their last mission, many pilots desperately tried to come to grips with their destiny – often unsuccessfully. 23-year-old Hayashi Ichizo

Hachimaki-headbands were worn to bring strength and luck to kamikaze pilots.

KAMIKAZE PLANE WAS ONE BIG EXPLOSIVE WRAPPED IN WOOD AND CHEAP METAL

The Ohka "cherry blossom" rocket plane was specifically built for kamikaze attacks. The simple design was based on a wooden skeleton wrapped with thin metal. During missions the plane was delivered as close to the target as possible by a parent aircraft yet for devious reasons the Japanese refused to outfit the aircraft with landing gear. Doing so ensured that the pilot did not abort at the last minute. In battle, the lightweight Ohka proved extremely difficult to control and the Allies shot a vast majority down before they reached their targets.

ENGINE. Ohka's rocket engine could propel the aircraft up to 965 km/h just before impact. The prototype Ohka had an engine under each wing but the concept was scrapped because the rockets burned unevenly making the plane spin. The Japanese experimented with equipping the Ohka with jet engines, but were unsuccessful.

CROSSHAIRS. Pilots were supposed to ram their targets using a single sight in front of the cockpit.

NOSE-DETONATOR. A mechanism on the tip of the aircraft's nose caused the payload to explode on contact with the target. In case the mechanism failed, another detonator was fitted to the weapon itself.

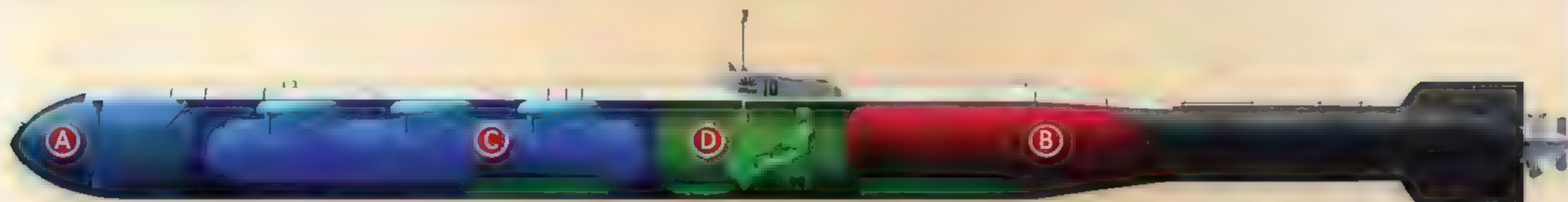
PILOT. Crammed between an explosive charge and the rocket engines sat the pilot. For the first Ohka missions, the Japanese used only experienced pilots. Before battle pilots were allowed three test flights in special planes equipped with landing gear so that they could come down alive.

MAIN WEAPON. The tremendously large 1,200 kg warhead was encased by an armour-piercing steel jacket.

CARRYING RING. The Ohka was attached by a simple harness underneath a Mitsubishi G4M bomber. When the bomber released the Ohka, the range of the kamikaze aircraft was 88 km on paper, but in practice the aircraft rarely flew more than 6-11 km.

MANNED TORPEDO WOULD SINK ALLIED SHIPS

Along with the Ohka kamikaze, Japanese engineers developed the Kaiten-class submarine – essentially a modified torpedo that would be carried to the battle by a parent submarine. The suicide craft were never successful – they often took on water when their parent subs dived and sunk only two enemy ships throughout the war.



■ The 1,550 kg warhead (A) was far more powerful than the payload of conventional torpedoes and was triggered by two impact-detonators when the sub hit an enemy ship. The engine (B) was the same as in a Japanese Type 93 torpedo which propelled the Kaiten at 30 knots (55 km/h). An oxygen

tank (C) in front of the pilot supplied oxygen to the combustion engine. The pilot (D) was often an 18-20-year-old volunteer who sat in the middle of the vessel using a periscope for navigation. During an attack, the pilot drove the submarine toward the target at a depth of five metres.



The youngest kamikaze pilots began training as 15-year-olds. Yukio Akaki at 17 (with the puppy) died two months after this photo.



A kamikaze attack in May 1945 knocked the aircraft carrier USS Bunker Hill out of the fight. The ship stayed afloat yet she never again returned to battle.



The kamikaze attacks took more than 7,000 Allied soldiers' lives. Funeral ceremonies were held aboard ships.

wrote in his diary in February 1945, "To be honest, I cannot say that the wish to die for the emperor is genuine, coming from my heart. However, it is decided for me that I die for the emperor." Two months later, he died near Okinawa.

PILOTS MUST NOT CLOSE THEIR EYES

Many of the tokkotai pilots could not see the meaning in facing a noble death and to them Japan's defeat appeared inevitable. But precisely the sense of this inevitable defeat caused many to think that if they were to die anyway, it may as well be as a human weapon.

Pilot Yasuo Kuwahara wrote that, "... Each man's attitude fluctuated to some extent from hour to hour. There were times when I longed for revenge. Or when I considered that by destroying an American ship I might save many of my people... Then my own life seemed insignificant." The war ended before his suicide mission was ever carried out.

To ensure that none of the doubt-filled pilots changed their minds last-minute, everyone was given a manual with instructions for the final phase of a kamikaze attack:

"When diving and crashing on to a ship, aim for a point between the bridge tower and the smoke stack(s)... Just before the collision it is essential that you do not shut your eyes... You feel that you are suddenly floating in the air. At that moment, you see your mother's face.... Then you are no more.... Remember when diving into the enemy to shout at the top of your lungs: 'Hissatsu!' (Deathblow)"

KAMIKAZE LOOKS LIKE A SUCCESS

When the tokkotai raids at Okinawa finished, 36 Allied ships rested on the seabed. The Japanese claimed that the number was 44 with 280 damaged. Up to 1,900 aircraft were lost, but the Japanese had not inflicted so much damage on the Americans in a very long time. Although

Okinawa was lost, – and with it up to 117,000 soldiers and 150,000 civilians – the effectiveness of tokkotai strengthened Japan's commitment to suicide attacks.

No one dared to dream that the empire could win the war, but the hope was to strike one last great blow and by so doing force the US into peace negotiations rather than suffer an unconditional and humiliating surrender.

SUICIDE TO SAVE JAPAN

Before the loss of Okinawa, it was already clear that the war would reach Japan's four main islands, Kyushu, Honshu, Shikoku and Hokkaido. To prepare Japan's military planned a nationwide defence. The plan, which called for as many as two million Japanese soldiers and 10,000 suicide planes, was named Operation Ketsugo.

The strategy was to inflict as many casualties as possible on the Americans during the anticipated invasion that would reach the shores of Japan. The tokkotai pilots were instructed to target American landing vessels and

troop transports as 300-400 planes would be launched in waves at one hour intervals.

Virtually every aircraft available to the Japanese was being rebuilt into a tokkotai bomber as the government repurposed Japan's factories to produce specially designed kamikaze variants.

The navy planned to field more than 700 Koryu-class midget submarines designed as manned suicide craft against the US invasion, in addition to custom-built Kaiten-class suicide torpedoes – essentially a torpedo with slightly longer range, better manoeuvrability and room for one pilot.

For use closer to land, the fleet developed the Shin'yo-class suicide

motorboat, loaded with 250 kilograms of explosives which would launch from the coasts and travel at a speed of 30 knots to strike US troop transports.

The Japanese devised increasingly more complex suicide tactics. It was planned to place single divers in small underwater bunkers along the coast at a depth of 10 metres, each armed with its own rod tipped with an explosive charge. When a vessel passed above, the divers would swim up to the surface and jam the rod into the hull to detonate the charge. The Admirals' planned to send more than 4,000 Japanese, often minors, to their death wearing diving suits.

The entirety of Operation Ketsugo was summarised by a Japanese army officer with fervent optimism:

"We will prepare 10,000 planes to meet the landing of the enemy... We will smash one-third of the enemy's war potential with our suicide force in the sea. Another third will also be smashed at sea by our warships, human torpedoes, and other special weapons.... [I]f we are ready to sacrifice a million men, we will [inflict similar casualties].... If the enemy loses a million

"You feel that you are suddenly floating in the air. At that moment, you see your mother's face.... Then you are no more...."

On the island of Saipan, civilians jumped to their deaths at the sight of US soldiers.

Japanese propaganda had made the islanders terrified of the Americans.



KEY MOMENTS

ROOSEVELT DIES

In the midst of the gruesome Battle of Okinawa on 12th April, 1945, the USA's popular president Franklin D Roosevelt dies of a brain haemorrhage. Thus, Vice President Harry Truman will make the crucial

decisions at the end of the war against Japan.

Truman refuses to invade Japan, and in July 1945 he orders atomic bombs to be dropped over the cities of Hiroshima and Nagasaki. Soon after, Japan surrenders.



men, then the public opinion in America will become inclined toward peace, and Japan will be able to gain peace with comparatively advantageous conditions."

Not everyone in the Japanese ranks supported the suicidal Operation Ketsugo. In fact, a faction led by the foreign minister argued that anything but unconditional surrender would destroy Japan. It was not an acceptable stand in Japan and War Minister Korechika Anami harshly replied that those who could not live up to their responsibilities to the emperor, should commit suicide.

Anami and his supporters were determined that all of Japan should defend itself to death against the US. There had to be unity. The propaganda fed to the Japanese people argued that the faster the Americans came, the better and that millions would die proudly. It was the country's responsibility to come to the fore and fight. The army pressed into service several hundred of thousand soldiers, including school boys and pensioners. Japan

would have to be defended with everything the country had left.

US BOMBS TO FORCE SURRENDER

While the Japanese were preparing their ultimate defence, US military leadership devised plans for Operation Downfall – an invasion very similar to what the Japanese expected. The Americans would, if President Truman gave final approval, go ashore at Kyushu – the southernmost of Japan's four main islands.

However, the Americans were also pursuing another plan all together.

In January 1945, the US Air Force appointed General Curtis LeMay as commander of the B-29 bomber fleet in the Pacific. And with his appointment came new orders. The bombers over Japan had previously focused on military and industrial targets, but now entire cities would have to be bombed LeMay argued. The Japanese must be made to suffer so

dearly that their leaders could not do anything but accept unconditional surrender. In this way the Americans could avoid invading the country, thereby saving between 400,000 and 800,000 US lives according to military analysis.

During the spring and summer of 1945, the US carried out the most extensive bombing campaign in history, as pilots dropped 160,000 tonnes of explosives over Japanese cities. The bombs were primarily incendiaries containing napalm and in some cities virtually every building was wiped from the surface of the earth.

During the firebombing of Tokyo on 10th March, 1945, more than 300 B-29s jettisoned their deadly cargo. The attack was accompanied by strong winds blowing over the Japanese capital which spread the fire across the thousands of wooden structures. In no time the flames devoured everything and the only possible escape for the city's inhabitants was to dive into the sea. As the dawn broke over the

Japanese capital, more than 100,000 had perished.

A total of 67 of Japan's largest cities experienced the wrath of the Americans and up to half a million Japanese civilians lost their lives.

A NEW BOMB IS READY

26th July, 1945, leaders from the US, Great Britain and Soviet Union gathered in Potsdam southwest of Berlin to draw a new European map after the victory over Hitler. 10 days prior, a test in New Mexico's desert has assured the United States that its new super-weapon, the

The atomic bomb "Little Boy" levelled Hiroshima with the ground.

atomic bomb, was operational. From Potsdam, US and British leaders sent an ultimatum:

"We call upon the government of Japan to proclaim now the unconditional surrender of all Japanese armed forces, and to provide proper and adequate assurances of their good faith in such action. The alternative for Japan is prompt and utter destruction."

The Japanese responded with indignant silence.

TWO CITIES SENTENCED TO DEATH

6th August, 1945, at 02.45, the B-29 *Enola Gay* took off from the American base on the Pacific island of Tinian.

Pilot Paul Tibbet headed for the Aioi Bridge in the middle of the large city of Hiroshima. In the cargo hold, the aircraft carried the atomic bomb "Little Boy".

At 08.15 the massive bomb with its two parachutes slowly descended towards the city for some time. In an instant, an enormous mushroom cloud rose out of the centre of Hiroshima. 70,000 people suddenly ceased to exist.

Three days later, on 9th August at 11.02, the bomb "Fat Man" exploded over Nagasaki. 40,000 people were killed immediately. That same day, the Soviet



After the battle for the island of Saipan, frightened civilians emerged from the ground where they had been hiding.

Union invaded Japanese occupied Manchuria.

DIE LIKE A FLOWER

Still, the most stubborn of Japanese leaders refused to give up. At a meeting in the government stronghold, Prime Minister Kantaro Suzuki argued to capitulate, but War Minister Korechika Anami insisted that surrender was unworthy and utterly unthinkable as he believed. He wondered, "Would it not

be wondrous for the whole nation to be destroyed like a beautiful flower?"

Emperor Hirohito, however, had finally had enough. On 15th August, Japan's population for the first time heard the voice of the "living god" via the radio.

"Should we continue to fight, it would... result in an ultimate collapse and obliteration of the Japanese nation," the emperor declared. War Minister Anami committed ritual suicide on the same day.

The official surrender ceremony would take place on 2nd September, 1945, aboard the American battleship *USS Missouri*.

After six years of horror, World War II was finally over. ■

250,000

people died due to the USA's two atomic bombs – immediately or by radiation sickness and other injuries.



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WELCOME

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TIMELINE

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JAPAN GOES TO WAR

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BATTLE OF BRITAIN

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WAR UNDER THE SEA

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THE FRENCH RESISTANCE

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BATTLE OF STALINGRAD

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WAR ON MANY FRONTS

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THE INVASION OF NORMANDY

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THE ATTACK ON HITLER

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HOLOCAUST

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THE FALL OF BERLIN

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JAPAN'S BATTLE TO THE DEATH

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The World was set on fire

On 1st September, 1939, 1.5 million German soldiers marched into Poland.

The attack caused France and Britain to declare war on Germany. In the beginning, the declaration of war only prompted Germany to launch a half-hearted naval blockade. But on 9th April, 1940, Hitler initiated Blitzkrieg.

Over the course of one month, Denmark, Norway, Holland, Belgium, Luxembourg and France were all occupied and the British forces in France had to be quickly evacuated from Dunkirk. At the same time, Japan, Hitler's allies, roared across the East and world war was soon a reality.

Hitler's war machine seemed impossible to stop until he sent the Luftwaffe to Britain. Then the German dictator was forced to concede defeat. The Battle of Britain costs Luftwaffe nearly 1,900 aircraft and 2,700 men. The enormous losses seriously weakened Hitler the following year when he chose to open a new front in the east – the Eastern Front.

